DOCUMENT RESUME

ED 439 725 IR 057 819

AUTHOR Blixrud, Julia C., Comp.
TITLE Managing Printing Services. SPEC Kit 254.
INSTITUTION Association of Research Libraries, Washington, DC. Office of Leadership and Management Services.
ISSN ISSN-0160-3582
PUB DATE 2000-00-00
NOTE 121p.; SPEC Flyer not included with this SPEC Kit.
AVAILABLE FROM ARL Publications Distribution Center, P.O. Box 531, Annapolis Junction, MD 20701-0531 ($30 members; $40 nonmembers; plus $6 each shipping and handling). Tel: 301-362-8196; Fax: 301-206-9789; e-mail: pubs@arl.org; Web site: http://www.arl.org/pubscat/index.html.
PUB TYPE Collected Works - Serials (022) -- Reports - Research (143) -- Tests/Questionnaires (160)
JOURNAL CIT SPEC Kit; n254 2000
EDRS PRICE EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *Academic Libraries; *Computer Printers; Higher Education; Library Equipment; Library Policy; Library Services; Library Surveys; *Printing; *Research Libraries
IDENTIFIERS Association of Research Libraries

ABSTRACT

This SPEC (Systems and Procedures Exchange Center) Kit reports results of a survey that examined how Association of Research Libraries (ARL) members currently provide printing services to their users and how the costs of those services are covered. Of the 122 members surveyed, 62 responded. Included in the responses was information on main, law, medical, and branch or other campus libraries, representing Canadian, national, U.S. private, and U.S. state research libraries. Of those responding to the survey, only one library indicated it did not provide printing capabilities for all or some of the public computer workstations. Results are provided on policies, printing volume, technical capabilities and staff support, costs and cost recovery, formal evaluation, and issues and trends. Represented documents from selected responding libraries, presented after the survey form, include: library printing policies (Indiana University, University of Maryland, Northwestern University); online user instructions (University of Chicago, Georgetown University, University of Guelph, Northwestern University, University of Pittsburgh, Yale University); printed user instructions (University of Minnesota, New York University, University of Waterloo, University of Western Ontario, York University); computer center printing policy (Auburn University, Georgetown University, University of Guelph, Indiana University, Northwestern University, University of Pittsburgh, Yale University); and evaluation (University of Chicago, University of Guelph, Vanderbilt University). (AEF)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 439 725

SPEC Kit 254

Managing Printing Services

December 1999

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

A. Verna

THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

■ This document has been reproduced as received from the person or organization originating it.

□ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

IR057819

Association of Research Libraries
Office of Leadership and Management Services

BEST COPY AVAILABLE

Managing Printing Services

A SPEC Kit compiled by

Julia C. Blixrud
Director of Information Services
Association of Research Libraries

December 1999

Series Editor: Lee Anne George
Production Coordinator: Peter Budka

SPEC Kits are published by the

Association of Research Libraries
Office of Leadership and Management Services
21 Dupont Circle, NW, Suite 800
Washington, D.C. 20036-1118
(202) 296-2296 Fax (202) 872-0884
<http://www.arl.org/olms/infosvcs.html>
<pubs@arl.org>

ISSN 0160 3582

Copyright © 2000
The papers in this compilation are copyrighted by the Association of Research Libraries. ARL grants blanket permission to reproduce and distribute copies of these works for nonprofit, educational, or library purposes, provided that copies are distributed at or below cost, and that ARL, the source, and copyright notice are included on each copy. This permission is in addition to rights of reproduction granted under Sections 107, 108, and other provisions of the U.S. Copyright Act.

♾ *The paper used in this publication meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper).*

BEST COPY AVAILABLE

SPEC

Supporting Effective Library Management for Over Twenty Years

Committed to assisting research and academic libraries in the continuous improvement of management systems, OLMS has worked since 1970 to gather and disseminate the best practices for library needs. As part of its committment, OLMS maintains an active publications program best known for its SPEC Kits. Through the OLMS Collaborative Research/Writing Program, librarians work with ARL staff to design SPEC surveys and write publications. Originally established as an information source for ARL member libraries, the SPEC series has grown to serve the needs of the library community worldwide.

What Are SPEC Kits?

Published six times per year, SPEC Kits contain the most valuable, up-to-date information on the latest issues of concern to libraries and librarians today. They are the result of a systematic survey of ARL member libraries on a particular topic related to current practice in the field. Each SPEC Kit contains an executive summary of the survey results (previously printed as the SPEC Flyer); survey questions with tallies and selected comments; the best representative documents from survey participants, such as policies, procedures, handbooks, guidelines, websites, records, brochures, and statements; and a selected reading list—both in print and online sources—containing the most current literature available on the topic for further study.

Subscribe to SPEC

Subscribers tell us that the information contained in SPEC Kits is valuable to a variety of users, both inside and outside the library. SPEC purchasers use the documentation found in SPEC Kits as a point of departure for research and problem solving because they lend immediate authority to proposals and set standards for designing programs or writing procedure statements. SPEC Kits also function as an important reference tool for library administrators, staff, students, and professionals in allied disciplines who may not have access to this kind of information.

SPEC Kits can be ordered directly from the ARL Publications Distribution Center. To order, call (301) 362-8196, fax (301) 206-9789, email <pubs@arl.org>, or go to <http://www.arl.org/pubscat/index.html>.

Information on SPEC and other OLMS products and services can be found on the ARL website at <http://www.arl.org/olms/infosvcs.html>. The website for SPEC is <http://www.arl.org/spec/index.html>. The executive summary or flyer for each kit after December 1993 can be accessed free of charge at the SPEC website.

Kit 254

Managing Printing Services

December 1999

Survey

EXECUTIVE SUMMARY 9
SURVEY RESULTS 13
RESPONDING INSTITUTIONS 23

Representative Documents

LIBRARY PRINTING POLICY

Indiana University
Printing FAQ 28

University of Maryland
Pay-for-Print Frequently Asked Questions 32

Northwestern University
Printing Courtesy Guidelines 34

ONLINE USER INSTRUCTIONS

University of Chicago
Printing Information from Library Workstations (Tutorial) 36
Printing from Networked Workstations 44

Georgetown University
Photocopying & Printing 46

University of Guelph
Library Public Printing 48

Northwestern University
Example: Printing, emailing, and downloading in Windows 56
Example: Printing, emailing, and downloading from Web 58
Example: Printing, emailing, and downloading in Telnet 59
Printing 60

University of Pittsburgh
Photocopying & Printing 61

Yale University
Printing and Downloading from SML Public Workstations 63

PRINTED USER INSTRUCTIONS

University of Minnesota
A User's Guide to Printing 68

New York University
Saving & Printing from Bobst Workstations 70

University of Waterloo
Instructions for Networked Printing 72

University of Western Ontario
Photocopying & Computer Printing 75

York University
How to Print from the Internet 77
How to Release Your Print Job 78
Network Printing Is Now Available from Public Workstations 79
How to Retrieve Your Print Job 80

COMPUTER CENTER PRINTING POLICY

Auburn University
Information Technology Network Policies Table of Contents (excerpt) 82
4.4 Use of Printing Resources 83

Georgetown University
Printing with Uniprint 84
Paying for Uniprint Printouts 85
Uniprint Printing Station Locations 86
Printing Documents from a Uniprint Station 87
Using Uniprint Cards—Frequently Asked Questions 88
Printing Problems in UIS Labs 89

University of Guelph
Printing on Campus 90

Indiana University
Student Technology Centers (STC) Printing Services 91
Introduction to STC Printing Services 92
Prudent Printing Practices 93

Northwestern University
Lab Printing Policy 96

University of Pittsburgh
Students Print Allocation 97

Yale University
Cluster Printing 98
ITS Distributed Printing 99
ITS Print Account Management 101

EVALUATION

University of Chicago

The 1998 Survey of Faculty and Students 104

6. Printing and Photocopying Services Results 106

University of Guelph

Public Printing in the Library 110

Library Distributed Printing Project Schedule 111

Library Public Printing, 1999, Pages Printed 112

Library Public Printing Page Count 113

Vanderbilt University

Printing and Cost Recovery: Libraries and Computer Labs 114

Selected Resources

BOOKS AND JOURNAL ARTICLES 119

SURVEY

SPEC Kit 254
Managing Printing Services

Executive Summary

Introduction

For many research libraries, increased access to electronic information has resulted in increased demand for printing services because many library users like the capability to print the results of online searches, copies of full-text documents, and PDF versions of electronic journal articles. And although research and education deal increasingly with electronic information, paper output is still desirable for some functions. Consequently, managing printing services can be a significant activity for research libraries. When libraries decide to purchase new computer workstations, they usually need to decide what to do about printing.

The impetus for this investigation was a short, informal survey of ARL directors in the fall of 1997 in which over 80% of the respondents indicated that they were charging or planning to charge for printing in some way. This development was in stark contrast to the results presented in SPEC Kit 182, *Provision of Computer Printing Capabilities to Library Patrons*, April 1992, in which seven out of 77 libraries indicated that they charged for printing.

The SPEC survey for this Kit was distributed to ARL members in the fall of 1999. The survey was designed to gather information on how ARL libraries currently provide printing services to their users and how the costs of those services are covered. Of the 122 members surveyed, 62 answered this survey, for a response rate of 51% of the membership. Included in the responses was information on main, law, medical, and branch or other campus libraries, representing Canadian, national, U.S. private, and U.S. state research libraries. Of those responding to the survey, only one library indicated it did not provide printing capabilities for all or some of the public computer workstations within library buildings. The library landscape for printing has changed dramatically in the last decade, as this SPEC Kit shows.

Policies

The ubiquitous nature of printing in research libraries can be first seen in the responses to the question on policies. Since nearly two-thirds of the institutions reported no written policy statement (39 respondents), the reader might assume that printing is so commonplace that no policies are necessary. Less than one-quarter of the responding libraries (14 institutions) have a written policy statement on printing, although a smaller percentage of respondents is in the process of developing such a statement. An examination of the policies provided by survey respondents reveals that they focus on the how and where of printing and provide brief statements on fees or quotas, if instituted. Instructions for users were also provided as part of the printing policy information. From examination of institutional websites it can be seen that printing is often managed in conjunction with photocopy services, and, for several institutions, the policies and practices of printing and photocopying appear on the same web page.

The survey addressed all of the libraries within an institution. Sixty percent of the respondents indicated that their printing policies are not consistent across the various libraries, however, which offers one explanation for the lack of written policies. In several cases, the policies differed

because of differing administration of the main, law, medical, and branch libraries.

The lack of library policies is not seen as a problem, according to 21 respondents (40%), since those institutions follow campus printing policies, which are readily available from such departments as academic or campus computing services, information technology services, or photocopy services. The 32 respondents (60%) who reported that library and academic printing policies differ indicated that those policy differences are usually related to fees, with student fees supporting free printing from computer labs in some cases and libraries providing free printing and computer labs charging in other cases. As one respondent indicated, the major reason for differing policies is: "We are under different administrations." However, libraries have been working with campus partners to try to develop more consistent policies for students and faculty.

Printing Volume

Slightly over two-thirds of the responding libraries (39 or 70%) indicated that they had a printing volume of less than one million pages. Further analysis determined that neither the size of the population served nor the size of the collection had an effect on the amount of printing for this set of respondents. However, of those 39 libraries, 32 (82%) charged for printing in some way. Of the nine libraries that had two to four million pages printed in the last fiscal year, three charged, three did not charge, and three were planning to charge. Of the three respondents with the highest printing volume, two did not charge and one was planning to charge.

The quantity of printing has increased during the last five years for 43 (73%) of the respondents. For 13 (22%), it decreased, and only 3 (5%) indicated that the quantity stayed the same. Of those for whom printing increased, more equipment and available resources were reported as the major factors for the increase. On the other hand, eight of the thirteen (62%) respondents that experienced a decrease in printing have instituted charging, and nine of that group (69%) identified their encouragement of the use of downloads or emails as another factor contributing to the change in quantity. One respondent reported that using pink paper resulted in less printing.

Technical Capabilities and Staff Support

Networked printing with laser printers from computer workstations is the dominant printer configuration for respondents to this survey. Libraries that still have either local or networked dot-matrix printers are planning to move to networked laser printers as quickly as possible. The number of public printing workstations has increased for 42 respondents (69%), decreased for 12 (20%) and stayed the same for 7 (11%). Comments from respondents indicate that the decrease in printing stations is generally attributed to the change from local dot-matrix to networked laser printers. A further analysis of the comments shows that computer workstations or terminals increased as printers decreased for most libraries. Only those institutions in which new or remodeled facilities were being equipped reported an increase in printers.

The 1992 SPEC Kit gathered data to make statistical comparisons on the ratio of students to terminals, printers to OPAC terminals, students per CD-ROM workstation, etc. This survey did not attempt to make such comparisons, since local configurations and remote access through campus networks and the Internet would likely make such comparisons arbitrary. Also, in analyzing the data, no correlations could be found between printers and population served, size of collection, or printing volume. In terms of total equipment, the responses ranged from 1 to 120 dot-matrix, 1 to 115 laser, and 1 to 33 ink jet local printers. For networked printers, the ranges were: 1 to 76 dot-matrix, 1 to 264 laser, and 1 to 2 ink jet printers. Twenty-eight respondents averaged 21.4 dot-matrix printers; seventeen respondents reported an average of 21.2 laser printers. For networked printers, 53 institutional responses resulted in an average of 31.5 laser printers—the most popular type of printer.

By far, the most popular brand of printer is the Hewlett Packard Laser printer in various models. Other popular brands include (in order) Epson,

Lexmark, Panasonic, Okidata, and Canon. Several other brands and models were reported by one respondent each.

Primary responsibility for maintenance of the printers, such as replacing paper and cartridges, often falls to the staff at the closest service desk. In many cases, maintenance is outsourced, but staff can be called upon to help with troubleshooting. Other respondents indicated that they have procedures in place that begin with staff troubleshooting and continue with calls to the service provider. Other staff with primary responsibility for handing maintenance include information services staff, reference desk staff, and photocopy services staff.

Network printing is administered by the library for 34 (56%) of the respondents. Eighteen respondents (30%) manage network printing using UnipriNT. Twenty-three respondents provide color printing (at an additional cost), and 20 provide postscript drivers as special printing options. Nearly all (58 respondents or 97%) indicated that they provide the nonprinting option of downloading files to user-supplied diskettes, and 88% (53 respondents) provide the option for users to email files. Virus protection software is provided by 90% (53 respondents).

Costs and Cost Recovery

Just over 60% of the libraries (35–37 respondents for each category of user) do charge some fees for printing. Fifteen institutions indicated that they provide no free public printing services. An additional 7% of the libraries are planning on charging. For many research libraries, there is a "mixed model" for charging (a term provided by one respondent) in which dot-matrix printing is free and laser printing is charged at $.10 per page usually. Payment is handled through ID, debit, vend-a-card, or cash cards and is generally made when items are picked up at the print station. Some free printing services are provided at certain locations such as instruction laboratories or special terminals for printing citations from the online catalog.

No limit is placed on the amount of printing by 52 respondents (85%), but some respondents indicated that excessive printing probably would result in a staff member suggesting alternatives, if the situation was brought to their attention.

Thirty-five respondents (63%) indicated that all of their printing costs are covered, most of them by the library budget. The costs for consumable products (paper, printer cartridges, etc.) are most often covered by per print fees (43%) or the library budget (34%). Software and hardware maintenance, along with staff support and any new projects or equipment, are also more likely to be covered by the library budget (60%) or per print fees (25%).

Evaluation

Only eight of the respondents (13%) have conducted a formal evaluation of their printing services, but an additional 16 (27%) have plans for such an evaluation. For some institutions, the evaluation will be conducted in conjunction with the other campus printing (usually computer) services. These evaluations often incorporate issues concerning technical configurations, contract services, and fees. Information on the cost effectiveness of the service can be gathered from sources such as records of supply costs or logs that document printer availability and repair records. Few evaluation documents were provided by respondents, but the ones included in this SPEC Kit provide guidance for those who wish to undertake an evaluation. Readers are reminded that user surveys are a good source for gathering information about library printing services.

Issues and Trends

Printing services are continuously changing with the rest of library technology, and, as this SPEC Kit shows, the associated costs are managed quite differently at the end of 1999 than they were during the first part of the decade. The move to contract out more services and charge fees for networked laser printing is a current, dominant trend. The expense of printing technologies combined with limited library budgets have pressured libraries to make

these changes, even though some hardware costs have declined.

More changes are foreseeable. It is likely that individual research libraries will soon measure the cost effectiveness of delivering printing services at all, as their campus or institutional technology environments change. For some institutions, there will be a strong need to provide consistent policies to their user populations, and it is probable that, as printing services are increasingly contracted out, more formal evaluations of those services provided will be conducted.

In contrast to the general increase in printing volume, some printing services may see a decline in volume as more users work remotely, even though more resources are made available electronically. This may help those libraries that are reluctant to charge users for printing and hope that tools (laptops, personal digital assistants, etc.) will make it easier for users to manage the results of their electronic research, so that printing on a large scale will not be needed and the costs can be more easily absorbed. Only time and technology can tell what will happen, when another investigation is made into this topic at a later date.

SPEC Kit 254
Managing Printing Services

Survey Results

For many libraries, increased access to electronic information has resulted in increased demand for printing services. During informal conversations with public service staff, many have noted that library users like the capability to print the results of their searches, copies of full-text documents, and PDF versions of electronic journals. A few years ago, the library literature included articles that discussed library service fees and the question of providing "free" printouts from online catalogs and CD-ROM databases. In early 1992, ARL surveyed its members on providing computer printing capabilities to library patrons (SPEC Kit 183). Only a small percentage of libraries (9%) responding to that survey reported they were charging for printing.

In the fall of 1997, results of a short, informal survey of ARL directors indicated that over 80% of the libraries were charging for or planning to charge for printing in some way. Indeed, the current library literature now includes articles on how to charge for printing. What brought about this significant change? This survey is designed to gather information on how libraries are providing printing services to their users and how those costs are covered.

This survey was prepared by Julia Blixrud, ARL Director of Information Services.

Please submit this survey and send the requested documentation by November 5, 1999. As always, individual responses to the survey will be treated confidentially.

Note: Sixty-two of the 122 ARL member libraries (51%) responded to this survey.

1. Do you provide printing capabilities for all or some public computer workstations within your library buildings (e.g., online catalogs, CD-ROM and networked resources, stand-alone systems)?

Yes	61	98%
No	1	2%

2. Please identify which libraries are included in your response to this survey. Check all that apply. (n=61)

Main	61	100%
Branches/other campus libraries	45	74%
Medical	11	18%
Law	9	15%

Policies

3. Do you have a written policy statement on printing?

Yes	14	23%
No	39	64%
In development	8	13%

4. Are printing policies consistent across all the libraries in your institution?

Yes	34	60%
No	23	40%

5. Are printing policies consistent with academic computing printing policies (e.g., does the computer lab charge the same, can users print from local disks)?

Yes	21	40%
No	32	60%

Printing Volume

6. How many pages were printed in the last fiscal year? Please supply an estimate.

Less than 1 million	39	70%
1–2 million	9	16%
2–4 million	5	9%
4–7 million	3	5%
over 7 million	0	

7. Has the printing quantity changed in the last five years?

Increased	43	73%
Decreased	13	22%
Stayed the same	3	5%

8. If the quantity has change, what factors contributed to the change? Check all that apply. (n=59)

More electronic resources	49	83%
More remote use of resources	17	29%
Instituted charging	17	29%
Encouraged use of downloading or emailing instead of printing	16	27%
Providing users with diskettes	7	12%
Increased charges	2	3%
Lowered charges	0	

Comments from respondents indicated that more equipment and resources were the best explanation for more printing. Institutions in which printing was reduced noted that instituting a charge had the most impact because users then routed print jobs to free campus print servers, emailed or downloaded to diskettes, or were more selective about what to print.

Technical Capabilities and Staff Support

9. How many public printing workstations do you have? Please supply the number of stations in each category.

Local Printers

	Responses	High	Mean	Median	Low
Dot-matrix printers	28	120	21.4	6	1
Laser printers	17	115	21.2	5	1
Ink jet printers	15	33	7.9	2	1

Networked Printers

	Responses	High	Mean	Median	Low
Dot-matrix printers	4	76	31.5	24.5	1
Laser printers	53	264	31.5	9	1
Ink jet printers	3	2	1	1.3	1

10. In the last five years, has the number of public printing workstations:

Increased	42	69%
Decreased	12	20%
Stayed the same	7	11%

11. What types of printers do you use? Check all that apply. (n=61)

Brand	Responses	Models Reported
HP	52	LaserJet (various models such as Series 2100, 2100TN, III, 4, 4050TN, 4Plus, 4050N, 4000N, 4M, 4M Plus, 4P, 4Si, 4Si MX, 5, 5M, 5000N, 5M Plus, 5N, 5Si, 5Si MX, 5Si NX, 6L, 6MP, 6P, 6Si MX, 8000, 8000DN, 8000N, 8100) DeskJet 672C, 810C, 870 Thinkjet, Color 800N, 400N, 6 MP (with local printers)
Epson	14	DFX-8500,FX-850, fx86, FX-870, LQ-570+, LQ5704, LQ-870, LX300, LX-800, LX810, Stylus 1520, Stylus Color 1520
Lexmark	11	2390 (dot-matrix) Optra S 1250, 1625, 1855, 2450, 2455
Panasonic	10	KX-P1124, KX-P2023, KX-P2123, KX-P3123, KY-P2023
Okidata	6	Microline 184, 320, 390, 395, 590 turbo
Canon	6	BJ-300 Bubble Jet
Other	13	Acer Laserjet, ALPS ASP1000, Apple ImageWriter II, Apple Laserwriter Brother (dot-matrix), Citizen GSX-190, Fujitsu (laser) IBM (dot-matrix), IBM17 MITA DP 2800, NEC Superscript 860, 870 RICOH MP01, Roland Raven PR-9101 (dot-matrix)

12. Who provides maintenance for the printers (e.g., troubleshooting paper jams, replacing printer cartridges, replacing paper)? (n=61)

Staff	Primary Responsibility	Nonprimary Responsibility
Staff at closest service desk	14	21
Information services	13	13
Photocopy staff	12	4
Reference staff	10	18
First person available	2	6
Other	17	7
Access services staff		
Contract vendor		
Desktop network services staff		
Computer services		
Campus services		
Library systems staff		
Circulation staff		
Administrative services staff		
Patrons		

13. Who administers network printing? (n=61)

Library	34	56%
Photocopy service	5	8%
Third party service provider (e.g., consortia)	4	7%
Parent institution (e.g., computing center)	2	3%
Other	16	26%
Various combinations of above		

14. Does your library manage network printing using UnipriNT?

Yes	18	30%
No	43	70%

15. Do you provide any special printing options? Check all that apply. (n=39)

Color printing	23	59%
Post script drivers	20	51%
Double-sided printing	9	23%
Other	4	10%

A variety of paper formats, such as 8 1/2" x 14", 11" x 14", etc.
Large format printing
Poster-sized printing
Proprietary formats such as JPRINT

16. Do you provide nonprinting options? (n=60)

	Yes	No
Downloading files to user-supplied disk	58	2
Downloading files to library-supplied disk	20	26
Email files	53	4
Other		

One can store on public disk drives.
The library offers a home directory for the computer network. It provides users with the ability to save, store, and access files on a central file service.

17. For those machines with floppy disk drives, do you provide virus-protection software?

Yes	53	90%
No	6	10%

Costs and Cost Recovery

18. Do you charge fees for all categories of users? How much per printed page? (n=59)

	Yes	No	Planning to	High	Mean	Low
Undergraduate students	37	18	4	.20	.10	.03
Graduate students	37	18	4	.20	.10	.03
Faculty	36	18	4	.20	.10	.03
Affiliated users (e.g., friends, alumni)	35	18	4	.20	.10	.03
Nonaffiliated users	35	18	4	.20	.10	.03
Staff	26	25	3	.20	.10	.03
Other	22	16	5	.20	.10	.03

Comments:

We do not charge by category of patron, but rather by type of printing and location. Task level printing is no charge; laser quality printing is $.15 per copy, and it requires a university account.

Impact printing will be free. It is not expected that faculty and staff will use public printing facilities.

We charge for laser printing only—at $.10 per page to anyone who wants a laser copy.

Cost per print decreases as dollars spent increases when using a vendor card. Coin copies are all $.10.

For internal use, we do not charge staff. For personal use, we charge staff the same rate as other users.

For laser printing, we charge $.10 per page, and we provide the paper. There is no charge for dot-matrix printing—most of our printers are dot-matrix. The patron provides the paper.

Faculty and staff have a beginning quota, and once it is exceeded, they are billed $.03 per page through the bursar. Staff have no quota and are billed $.03 per page through the bursar. Nonaffiliated users pay $5.00, which entitles them to use the printers for up to one month and translates to 166 pages ($.03 per page).

We provide all full-time students with $5.00 free printing per semester; part-time students with $2.50 per semester, paid via the student technology fee.

The library charges for printing only from the ABI/Inform Powerpages product that provides full-text printing at $.20 per page. There are four workstations connected to this database that use debit card vendamat terminals to charge the user.

Note: All figures in U.S. dollars. Charges for Canadian institutions were converted at the rate of 1.475 (rate as of 12/1/99).

19. What is the method of payment? Check all that apply. (n=48)

Debit card, vend-a-card, or cash card	39	81%
Institution ID card	18	38%
Cash or coins	9	19%
Other	7	15%

Charge against bursar account
Charge to grant funds

20. When is payment made? (n=47)

When the items are picked up at the print station	27	57%
At time of order	11	23%
Other	9	19%

Affiliated users are billed through the university
Debit to prepaid account with each print
Fees are subtracted from the vend-a-card when printing is done
Netprint charged to bursar account
When user requests to have print job processed at the PC kiosk

21. What free public printing services do you provide? Check all that apply. (n=60)

None	15	25%
Online catalog only	9	15%
Citations only	1	2%
First page	0	
Other	35	58%

Note: Of those who responded "Other," over half indicated that all printing services are free. Some of the free printing services are based on the nature of the equipment. For example, dot-matrix printing is free, but there is a charge for networked laser printing. Other free printing services are dependent on the nature of the resource. For example, free dot-matrix printing is offered from non-networked PCs which provide access to stand-alone CD-ROM databases. In one institution, sources available from UnCover can be printed for free. In another, DIALOG workstations provide free printing. Another category of free printing services depends on the location of the printing. For example, instruction labs have free printing service for use during training. Another category depends on the nature of the printing. For example, any database, catalog, website printing is free, but personal applications—word processing, spreadsheets, etc.—are not.

22. Do you limit the amount of printing?

No	52	85%
Yes, by number of pages	4	7%
Yes, by number of records	1	2%
Yes, by number of print jobs	0	
Yes, other	4	7%

By honor system
Depends on application
No files larger than 20MB
Print limit set by individual library department

23. How are your printing service costs covered? Indicate all that apply. (n=60)

	Library Budget	Per Print Fees	Student Fee (General)	Student Fee (Technology)	Institutional Technology Fee	Other
Consumable products (paper, printer ribbons, cartridges)	32	26	1	3	1	10
Software maintenance	36	15	1	1	2	10
Billed hardware maintenance/repair services	37	15	1	1	1	10
Staff support	42	13	0	2	2	9
New projects/new equipment	33	13	1	4	2	13
Royalties	15	4	0	0	1	4
Other	3	3	0	0	0	4

24. Are all of your printing costs covered?

Yes	35	63%
No	21	37%

Note: The institutions in which costs were covered indicated that the costs were borne by the library budget. For those institutions in which costs were not covered, the following comments were made: there is cost recovery for laser printing, but not for dot-matrix printing; operating costs are covered, but not all capital costs which are prorated over 5 years; consumable items costs are fully recovered, but remaining items are only partially recovered.

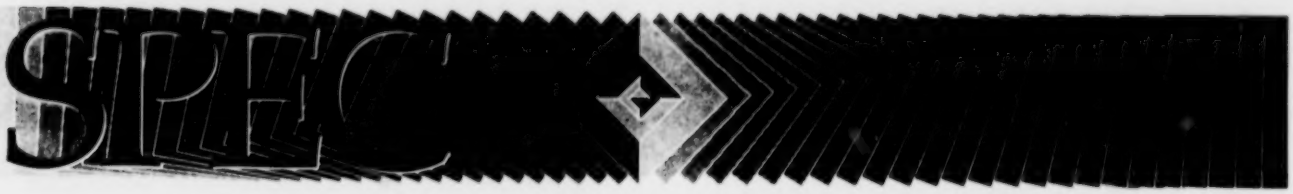
25. Have you conducted a formal evaluation of your printing services?

Yes	8	13%
No	36	60%
Planning to	16	27%

Responding Institutions

University of Alabama
University of Arizona
Arizona State University
Auburn University
University of California–Santa Barbara
University of Chicago
University of Colorado
Colorado State University
Cornell University
Duke University
Emory University
Florida State University
Georgetown University
Georgia Institute of Technology
University of Guelph
University of Hawaii
University of Houston
Howard University
Indiana University
Iowa State University
Johns Hopkins University
University of Kentucky
Laval University
Library of Congress
McMaster University
University of Manitoba
University of Maryland
University of Massachusetts
University of Minnesota
National Library of Medicine
University of Nebraska–Lincoln
University of New Mexico
New York University
Northwestern University
University of Notre Dame
Ohio University
University of Oklahoma
Oklahoma State University
University of Pennsylvania
Pennsylvania State University
University of Pittsburgh
Purdue University
Rice University
Rutgers University
Southern Illinois University
State University of New York at Albany
Syracuse University
Temple University
University of Tennessee
University of Texas
Texas A&M University
Texas Tech University
Tulane University
University of Utah
Vanderbilt University
University of Virginia
Virginia Tech
University of Waterloo
Wayne State University
University of Western Ontario
Yale University
York University

23



Representative Documents

BEST COPY AVAILABLE

Library Printing Policy

Indiana University Bloomington Libraries

Printing FAQ

- Why is there a print quota?
- What does this mean for the Libraries?
- What will the quota be?
- How will it work?
- How will the Libraries implement the quota system?
- How will visitors and non-IU affiliated users print?
- Printing Contact List
- What do we do about bad copies and/or mistakes?
- Can we kill a print job?
- What about access to government information?
- How do we print at the reference desk?
- How do we get supplies for the printers?
- Printing Committee

Why is there a print quota?

There has been a dramatic increase in the amount of printing done in the Libraries and in the Student Technology Center clusters because of the increase in web-based syllabi, assignments and full-text databases for library research. The cost of supporting the increase in the amount of laser printing led to a proposal by UITS to begin a quota system for printing in the STC clusters. The proposal has been accepted by the campus and the quota system will begin with the fall semester. The Residence Halls will not be part of the quota system at this time. Printing done by students in Residence Hall clusters will not be included in their quota.

What does this mean for the Libraries?

The Libraries have partnered with UITS and will be participating in the laser print quota. Networked laser printing done at public workstations in the Libraries and in STC clusters will be charged against the student's or faculty member's quota. Our goal in partnering with UITS is to create a seamless interface for users. As a result, there is one system for printing that can be used both in the Libraries and the STC clusters. This should be a convenience for our users.

What will the quota be?

The Libraries have contributed $50,000 (roughly what we paid to support printing this past year) to increase the quota from 600 to 650 pages a semester for undergraduate, MBA and JD students. The quota for graduate students is 1950 pages for the year (Sept. 1 - Aug. 31). The quota for faculty is 150 pages per semester and will be paid for by UITS and the Libraries. The Libraries will continue to support some Okidata printers connected to public workstations. There will be no charge for printing on Okidata printers. Not all library locations will have an Okidata printer.

Go to the top

How will it work?

UITS has purchased software to operate the quota system from UniPrint that will allow tracking of laser printing to be done by NT login. Anyone printing on a laser printer in the Libraries will need an NT account entered into the UITS software. The quota system will affect all public laser printing in the Libraries. In order to implement the quota system, a committee in the Libraries has looked at the many issues and policies associated with moving to this system. The following are recommendations from the committee.

How will the Libraries implement the quota system?

To print in the Libraries from a public networked laser printer, students, faculty and staff will need to have an NT account. Once they log on the workstation, any printing will be charged to their quota. When the quota has been exceeded there will be a charge of 3 cents a page for each additional page printed. Only faculty and students have a quota. Any printing done by PA and support staff will be charged at 3 cents a page. Billing will be handled through the Bursar. The quota only applies to networked laser printers. Printing on Okidata printers will still be free to the public and staff. Printing to staff printers will not be part of the quota.

How will visitors and non-IU affiliated users print?

Non-IU affiliated patrons may request a guest NT account for use in the Libraries at the Main Library circulation desk. The guest NT account is good for 30 days. There is a charge of $5 for a guest NT account that includes up to 166 pages of printing.

What do we do about bad copies and/or mistakes?

The student must write the date, time and printer ID on the printout then take the bad copies to Lindley Hall 026 or any STC cluster to receive credit. We do not have to make a judgement about the quality of the copies or argue with the student about the quality of the job.

Can we kill a print job?

The software that operates the accounting system and runs the printers resides with UITS. There will be two ways to kill a print job:

1. Call Lindley Hall 24-Hour STC Consulting Center (5-3802)
2. Kill it on the UITS server. For security reasons we recommend that only full-time staff be given this access. LIT will need a list of those who need to kill jobs.

When the user prints, before the document is actually printed, the user's account is charged for the printing. Even if the print job is killed, the user's quota has been reduced by the number of pages in the job and killing the job doesn't change this. To request credit for quota used when a job is killed, the user must go to a staffed STC Cluster or Lindley Hall 026. Public service sites may want to think about whether they want to have the option to kill a job. An advantage of the ability to kill a job is that it stops unnecessary printing.

Go to the top

What about access to government information?

Government information on the web poses a special challenge when implementing an authentication procedure and one that is tied to printing also. As a Depository Library, IU-B must provide citizens with free access to U.S. Government web sites. We recommend that a library network only NT account be an option made available to patrons in the Government

Publications Department (GPD) and the Geology Library that need access to web based government publications. The account would be generated in GPD and the Geology Library at the service point. This would be a "read only" account that would not be tied to the printing quota. This account could be generated the same way we are currently generating guest accounts. If patrons in GPD want access to printing, then an NT account tied to the UITS print system would be issued for $5 as recommended under visitor printing.

How do we print at the reference desk?

Printing at reference desks in the Libraries can be done two different ways. Printing can be sent to staff laser printers or to public printers using the log on assigned by LIT. All departments will have a unique printing account and password assigned by LIT. The account name and password is for use by departmental staff to print at networked printers.

How do we get supplies for the printers?

As part of the agreement, UITS will provide supplies for the networked public printers. This includes paper and toner. These supplies will need to be kept separate from supplies for staff printers. Technical support for the printers will still be provided by Library Information Technology (855-7503 or libauto@indiana.edu).

Printing Committee:

Erla Heyns	Dennis Gillespie	Phyllis Davidson	Anne McGreer	Carolyn Walters
Chuck Morrow	Steven Sowell	Ann Bristow	Mary Popp	Pat Steele

Printing Contact List

- **Printer Hardware Problems**
  Library Information Technology
  E-mail: libauto@indiana.edu
  Phone: 855-8601

- **Departmental Library Printing Accounts**
  Library Information Technology
  E-mail: libauto@indiana.edu
  Phone: 855-8601

- **Quota Questions**
  University Information Technology Services
  Student Technology Center (STC) Consulting -- 24 Hours
  Lindley Hall 026
  855-3802

  UITS information on printing policy:
  http://www.indiana.edu/~stcweb/public/change/stcprtsrv.html

  Library Printing FAQ: http://www.indiana.edu/~libugls/scomputer/pquota.html

- **Bad Copies/Mistakes**
  Requests for credit for bad copies can be made at any of the UITS staffed clusters or Lindley Hall 026. The date, time and printer ID must be written on the bad copy. Bad copies must be turned in at the time the request for credit is made.

  Questions can be answered by Student Technology Center Consulting Staff, Lindley Hall 026, 855-3802.

Requests for credit can be made in any of the STC clusters staffed by a consultant. The consultant staffing schedule is on the Web at http://www.indiana.edu/~stcdev/public/staffing/ viewStaffing.pl

- **Library NT Guest Printing**
  Guest Library NT accounts will be issued at the Main Library circulation desk. These accounts are library only accounts. The charge for a guest account is $5 and includes up to 166 pages of printing. Accounts are active for 30 days. Questions about guest accounts can be answered by LIT or a Main Library circulation supervisor.

Go to the top

Last updated: 31 August 1999
URL: http://www.indiana.edu/~libugls/scomputer/pquota.html
Comments: libugls@indiana.edu

UNIVERSITY OF MARYLAND LIBRARIES

Pay-for-Print Frequently Asked Questions

Why are the Libraries charging patrons to print their results?
The Libraries are instituting a networked pay-for-print solution in order to provide both better quality printing for our patrons and to recover the costs of that printing. In the past year, McKeldin Library alone had to replace five printers worn out by excessive use and has spent over $24,400 on paper and toner.

How will I pay for my printing?
Patrons will be able to use both the Danyl photocopy card (available in vending machines in the Libraries) and the University photo-id to pay for their printing. The printer stations will not accept cash.

What will the cost for printing be?
The charge will be $0.10 per page for black and white copies.

Where can I do color printing?
Color printing will be available for $0.50 per page at the Art Library.

What if I need to add money to my card?
Patrons can add money to either their photo id or to their Danyl card at any of our photocopy machines and at Danyl card dispensers. The copiers accept up to a $5.00 bill; the Danyl card machines accept up to a $20 bill. There is a Danyl card dispenser at Hornbake, one at McKeldin, and one at Engineering and Physical Sciences.

How do I print results of my research?
At the computer workstation, when you are ready to print, the computer will ask you to identify your print job with a name. At that time, you should preview your results to see if there are any blank pages or other problems. You can set up any number of print jobs.

Next, you will go to one of the printer stations located near the computers. Swipe your card through the card reader. Identify and select your print job from those listed on the screen. The screen display will tell you whether you have enough money on your card. Then, you can print. If you decide not to print part of the print job, simply leave it without printing. Eventually the job will be automatically deleted.

What if I can't print my print jobs now? Do the jobs stay in the queue forever?
This pay-for-print system has a built-in "time-clock." Unless printed, the job will stay in the print queue for a certain length of time before it has timed out. The timer limit is currently set for two hours.

What happens if I make a mistake? Will I be charged?
Yes. Because you can preview your work before sending it for printing, it is your responsibility to do so to determine if there are problems.

What do I do if the printer doesn't work?
Go to the Information/Service Plus desk for assistance.

How can I get my research results without having to pay for them?
You can email or download to a floppy disk from most databases. The other alternative is paper and pencil.

How can I make suggestions on making the system work better?
Many of the libraries have suggestion boxes for your ideas. If there is no box, please feel free to write out your suggestions and give them to personnel at the Information/Service Plus desk in the library you are using.

Watch this website for updates on the pay-for-print system.

Libraries, University of Maryland, College Park, MD 20742-7011 (301)405-0800
Please send comments and suggestions to the Libraries' Webmaster
Content questions should be directed to Information Provider
Last edited Monday, August 30, 1999 15:45:37

© 1999 University of Maryland Libraries
Last Revised: June 28, 1999

BEST COPY AVAILABLE

Printing Courtesy Guidelines

Please help to keep the print queue moving by observing the following guidelines, especially when others may be trying to print their documents:

1. **Whenever possible, don't print as a single print job files that are likely to be more than thirty pages. If possible, divide into two or more print requests.**

2. **Avoid printing large image files (over 1.5 megabytes) when this area is busy. This includes pdf files. The file size is listed on the workstation from which you release your print job. Typically, this area is less busy early in the morning, in early evening, and late at night.**

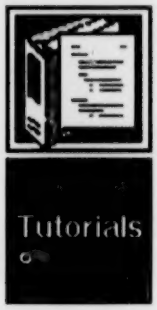
3. **Release print jobs one at a time, unless they are very small. In any case, do not release more than five print jobs at a time.**

4. **Northwestern students, faculty, and staff have first priority of use of computers and printers.**

Print jobs that do not follow these guidelines and are holding up the queue may be deleted by staff members.

If you have any questions about these guidelines or your print job, please consult with a staff member. The goal of these guidelines is to help everyone get their printing done.

Online User Instructions



Printing Information

from

Library Workstations

Directions:

1. **This page is the "first slide." You may return to this page at any moment by pressing the** **button.**
2. **To begin the tutorial, click on the first link ("Begin").**
3. **Navigational buttons will guide you through the show (i.e., you need not return to this page.)**
4. **If you have difficulty reading any of the slides, the** **button will take you to a more legible textual version of the slide.**

Begin

Printing Information

From
Library Workstations

Slide 1 of 13

Printing in the Library

- From Online Catalog Workstations
- From Networked Workstations
- From CD-ROM Workstations
- From ACS Computing Labs

Slide 2 of 13

BEST COPY AVAILABLE

The End

Click slide on location of choice.

Printing from the Online Catalog

- From a library online catalog workstation
  - Print one record at a time
  - Or print a list of records

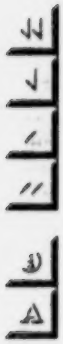
1. Complete plays.
   Aristophanes
2. The Persian wars.
   Herodotus
3. Hamlet.
   Shakespeare

BEST COPY AVAILABLE

Printing a List of Records

- Create a list by bookmarking the records you want as **Items**
- Display your bookmarked list
- Choose Print from the File menu

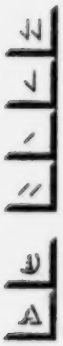
- Enter your name and a name for your list (now known as a print job)
- Remember what you enter so you can recognize your print job at the print station



Slide 5 of 13

At the Print Station

- Print and pay for your list at a UNIPRINT print station with your Chicago card or a gold copy card (10 cents per page)
- Your list will be available from any print station in the building
- If you're on the fifth floor of Regenstein and there's a line, try the fourth floor



Slide 6 of 13

UNIPRINT FROM IKON

- Black and white documents cost 10 cents per page
- Color documents cost 50 cents per page
- IKON staff are available if there are printing problems
- So tell Library staff about any difficulties

Slide 7 of 13

Printing from Networked Workstations (LibInfo)

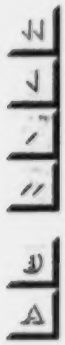
- Printing commands vary from one database to another
- Look for instructions on printing records from a specific database
- Or please feel free to ask a reference librarian
- The most obvious way to print may not be the best or easiest way

Slide 8 of 13

BEST COPY AVAILABLE

Printing a Web Page

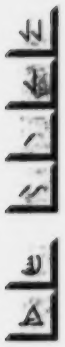
- Printing a screen from Netscape (or a "Web Page") IS easy
- Under the Netscape menu in the upper right, choose
  - Print document
    - or
  - Print color
- A pop-up box displays your workstation's city name
- The city name and the time identifies your print job at a print station
- Your print job will remain available for two hours



Slide 9 of 13

Printing a Telnet Screen

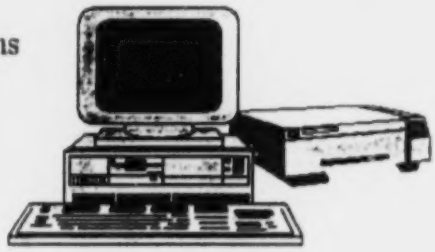
- Follow database print instructions
- Then use the mouse for the options menu
- Some of your options:
  - Turn Printing On/Off
  - Print Screen
- Remember to turn printing off if you choose the first option
- A pop-up box displays your workstation's city name
- The city name and the time identifies your print job at a print station
- Your print job will remain available for two hours



Slide 10 of 13

Printing from a CD-ROM Workstation

- Almost all of the cd-rom workstations still have printers next to them
- Follow the instructions for the database you are using
- And print to the printer right next to you



Slide 11 of 13

Printing in an ACS Cluster Computing Lab

- ACS computing labs are located in Weiboldt 310 (next to Harper Library), Regenstein 201, and Crerar 004
- You may create documents and print them in one of the Computing Labs
- Or you may edit and print files you have saved to a disk and then brought to a Computing Lab

Slide 12 of 13

The End

Click slide on location of choice.

Slide 13 of 13

BEST COPY AVAILABLE

Reference Documents | Printing from Networked Workstations

UnipriNT now provides high-quality laser-jet printing at networked Library workstations. Regular printing is ten cents per page. Color printing is available for fifty cents per page. IKON, the company that provides photocopiers for the Library, maintains and services the print stations. You may use either your Chicago card or your gold copy card to pay for your printing. Separate documentation for printing and saving records from online catalog workstations is also available.

PLEASE NOTE: Print jobs will automatically be deleted if they are not printed within two hours.

PRINTING FROM A NETSCAPE SCREEN

- Print button bars are located in the box at the top right corner of the screen.
- Click on either the "print document" or the "print color" button to print the Netscape document you are viewing. If you select the print option from the Netscape file menu, you will not have the option of selecting the color printer.
- A pop-up box that displays the name of your workstation will appear. Your print job will be identified by the name of your workstation and the time you send it.
- You may print a regular job at any UnipriNT workstation. Color printers are available on the first floors of Crerar and Regenstein.

PRINTING A PDF (Portable Document File)

- When a PDF document is displayed, the number of pages in the document appears at the bottom of the screen.
- Click on the magnifying glasses with a + or a - to increase or decrease the font size of the document.
- Click on the printer button at the bottom of the screen to print a document. A "Postscript output" box will appear.
- You may select the number of pages you want to print or click on OK to print the entire document.
- A pop-up box that displays the name of your workstation will appear. Your print job will be identified by the name of your workstation and the time you send it.
- You may print your job at any UnipriNT workstation.

PRINTING FROM JSTOR

JSTOR (Journal Storage Project) provides searchable full text of major journals in ecology, economics, education, finance, history, mathematics, philosophy, political science, and population studies from the initial volume through at least 1989. You can print citations or the full text of articles.

- JSTOR displays ten citations per screen. To print a screen of citations, click on the print document button in the box in the top right corner of the screen.
- To print the full text of an article, click on the JSTOR "Print Article" option on the left side of the screen.
- Select the "Postscript file option. **Please note:** the JSTOR and the Adobe Acrobat options **will not** work.
- You will be prompted to select either a high resolution or a low resolution download option. Click on a "download" option.
- When the text of the article is displayed, click on the file option in the upper left corner of the screen and drag the mouse down to select the print option and click on OK.
- A pop-up box that displays the name of your workstation will appear. Your print job will be

identified by the name of your workstation and the time you send it.
- You may print your job at any UnipriNT workstation.

PRINTING FROM SELECTED TELNET APPLICATIONS

FirstSearch

- When a single record is displayed, type **p full** and press **Enter**. When a list of titles is displayed, type p full and the item number(s) you want [e.g. p full 1-15; p full 2,6,8] and . A maximum of twenty items may be requested.
- You will be asked *"Are you ready to begin? (Y/N)."* Do the following: Place the mouse cursor inside the FirstSearch window and click on the **left** mouse button. A menu will be displayed.
- Use the mouse to highlight *Turn Printing On/Off*. A checkmark will appear next to your selection, and a pop-up box that displays the name of your workstation will appear. Your print job will be identified by the city name assigned to the workstation you are using and the time that you print it.
- Type **Y** and press **Enter** to begin printing or downloading. To request additional sets of up to twenty records, type full 11-20, e.g., after the first set of records has been printed/downloaded.
- Place the mouse cursor in the FirstSearch window; click on the **left** mouse button, and highlight *"Turn Printing On/Off"* to stop printing.
- You may print your search results at any UnipriNT workstation.

Eureka

- Type **print** or **pri** to begin printing or downloading when a list of headings or records is displayed You will be prompted to indicate which records you want to print. Up to 50 records may be requested. Type the record numbers you want (or all), and press **Enter**.
- You will then be prompted to specify the format you want. Select a format and press .
- You will be prompted to *"Turn on continuous printing or screen capturing."* Place the mouse cursor in the Eureka window and click on the **left** mouse button. A menu will be displayed.
- Use the mouse to highlight *Turn Printing On/Off* to print. A checkmark will appear next to your selection, and a pop-up box that displays the name of your workstation will appear. Your print job will be identified by the city name assigned to the workstation you are using and the time you send it.
- Press **Enter** to begin printing or downloading.
- When printing is complete, you will then be prompted to *"Turn off continuous printing or screen capture."* Place the mouse cursor inside the Eureka window; click on the left mouse button, and highlight "Turn Printing On/Off to stop printing.
- You may print your results at any UnipriNT workstation.

Return to: Reference Documents
This page was last generated on 01 October 1999 at 7:40 PM CDT by ece2@midway
The URL of this page is: http://www.lib.uchicago.edu/e/reg/using/reference/refdocs/printing.html

Georgetown University Library - Services

Photocopying & Printing

Audio & Video Production
Checking-out Books
Classroom Audio-Visual Services
Computing & Multimedia
Course Reserves
Getting Materials from Other Libraries (Interlibrary Loans)
Library Instruction

◆ **Photocopying & Printing**

Requesting Additions to the Library Collection
Reference & Research Help
Services for Patrons with Disabilities
Suggestions
Using Library Facilities

Top

- Change
- Copy Cards
- Microform Copying
- Printing
- Self-service Copying
- Specialized Copying Services

Change
Change for a $20 bill or smaller is available in Copy Services in Lauinger Library. Change for a $5 bill or smaller is available in the Blommer Science Library. Change machines on the second and third floors of Lauinger Library give change for $1 and $5 bills.

Copy Cards
Copy cards for use in the library printers and photocopiers may be purchased from Copy Services on the first floor of Lauinger Library or from Vendcard machines on the second and third floors of Lauinger Library and in the Blommer Science Library. Vendcard machines require a $1 bill to purchase a card. Value, up to $20, may be added to the card with $1, $5, $10 or $20 bills. Both copies and printouts are $0.10 cents a page.

Printing
Internet and index search results can be printed from Print Stations in the Reference Department, the Government Documents Department, and the Picchi Electronic Information Resource Center (PEIRC) in Lauinger Library and in the Blommer Science Library. From your computer workstation, send the print command, enter your name and a password of your choice, and then go to the Print Station. Insert your library copy card (the same card that is used for photocopying in the library, available from Copy Services and from vending machines on the second and third floors of Lauinger Library and in the Blommer Science Library.) and follow the instructions posted at the Print Station. Printouts are $0.10 a page.

Note: Use the computer workstations in the Picchi Electronic Information Resources Center (PERIC) in Lauinger Library to print your word processed documents. Reference, Government Documents, and Science Library workstations do not provide word processing software.

Self-service Copying
Self-service copiers are available on every floor (the second and third floors have many of them) in Lauinger Library and in the Blommer Science Library. In Lauinger, some copiers accept coins, others copy cards (available from Copy Services as well as machines on the second and third floors) and others both.

Specialized Copying Services
Copy Services, located in Lauinger Library, provides specialized services such as collated and stapled multiple copies, color paper, diskettes, binding and transparencies Copies made by Copy Services are $0.15 a page. For additional information on prices and services contact Copy Services.

Microform Copying
Paper copies may be made from microfilm, microfiche and microcard on self-service machines in the Government Documents and Microforms Department on the first floor of Lauinger Library. All microform copying machines require library copy cards. Copies are $0.10 a page.

Top

Library A to Z Index Search Contact Us

Last Updated: 7/6/99

Library Public Printing

How to Print

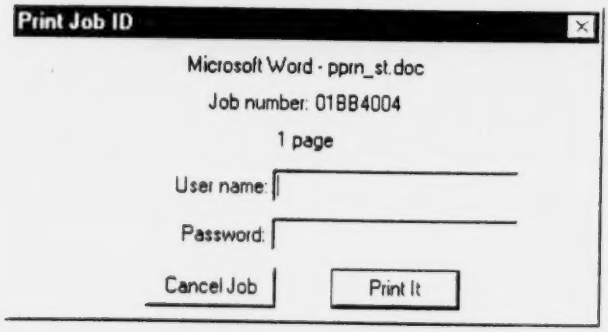
Procedure and Basic Troubleshooting

Step 1. **Using a public workstation, launch a print job by viewing a document; click on the print button on the tool bar or click on File and then Print, etc.**

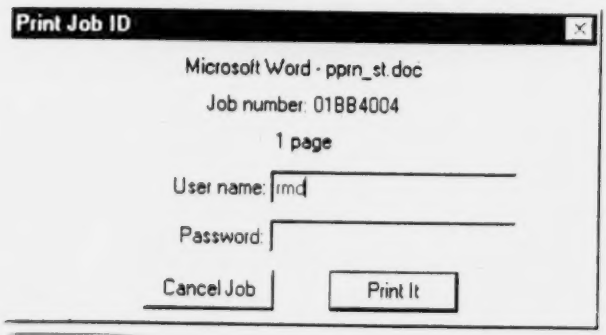
note: for TRELLIS and ERL, **first** *select* records to be printed

When the 'Print' window opens, click on 'OK.'

Next, the 'Print Job Popup' window will open -



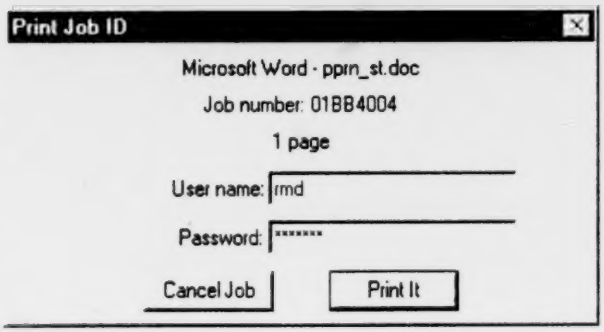
Enter a name or initials in the 'User name' area in order to identify this print job *as uniquely as possible*; e.g. -



note: in the above example, '**rmd**'will be displayed as the owner of this particular print job in the list of print jobs displayed at any Public Printing Release Station (see *Step 4* below)

Enter a password (which is easily remembered but not likely guessed by others); this password will be blanked out.

BEST COPY AVAILABLE

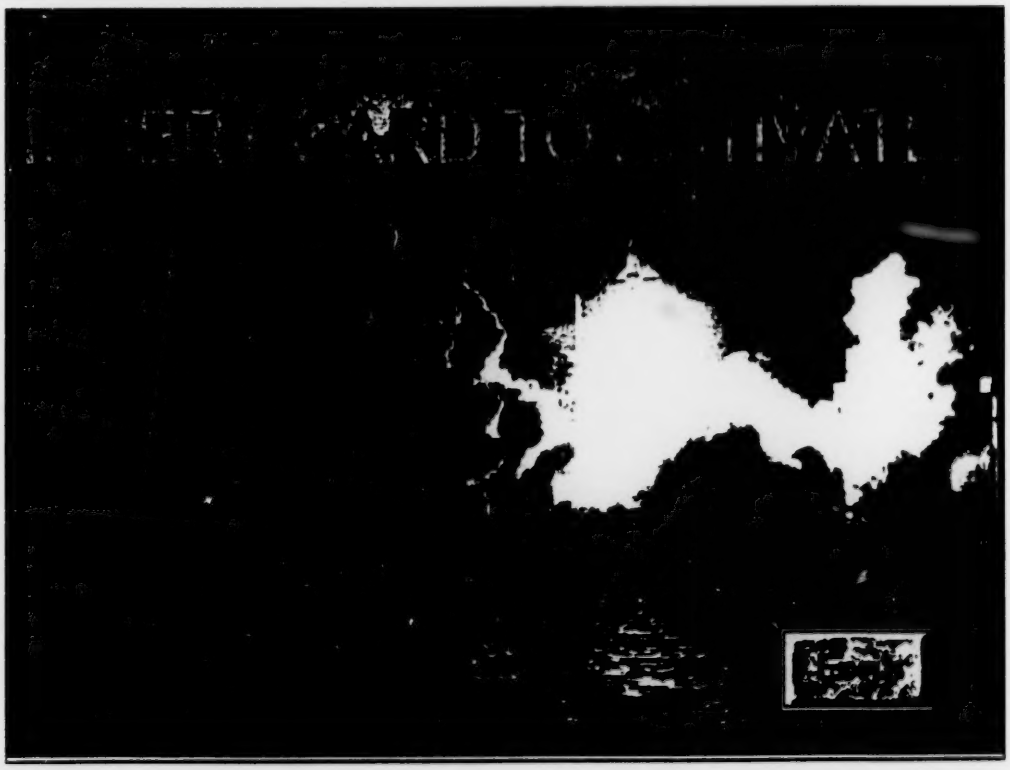


Click on the 'Print It' button.

Note: if this 'Print Job ID' window (Print Job Popup) does not appear within a few seconds, the client machine from which this print job is being launched is experiencing a problem; (this client machine should be shut down/restarted in order to re-activate the Print Job Popup software); also in this case, this print job (for which the Print Job Popup did not appear) will turn up in the list of print jobs available for printing with the 'Owner' as the Novell user under which the client is logged in, with the result that unique print job identification may be difficult

Step 2. **Go to a *Library* (not CCS) Public Printing Release Station, located in the McLaughlin Library on the 1st floor, 2nd floor, Basement (Docs & Gov. Pub.) and Basement (Archives) or in the Vet. Science Section.**

The Release Station should display the following screen -



Step 3. **Insert a Library Vendacard in the Cash Card Reader.**

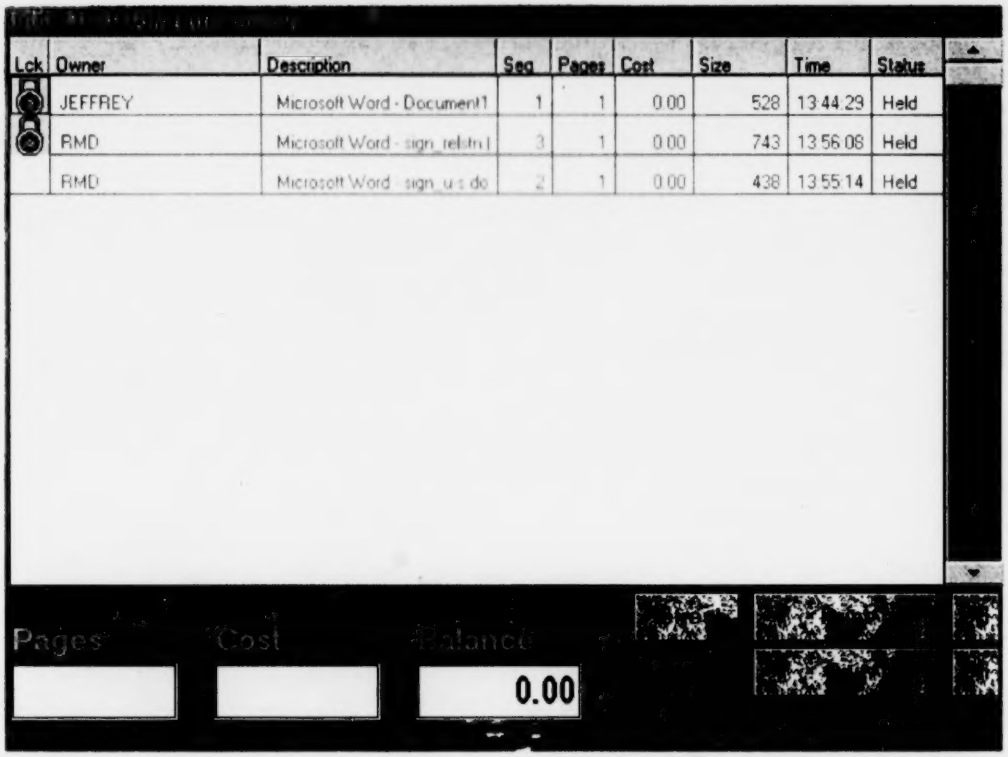
After a few moments, the ITC Print Queue Manager will display the 'Select User Id Request' window -

Step 4. **Enter the Job ID which is the 'User name' assigned to this print job in the 'Print Job Popup' window at the time the print job was launched, or single left click with the mouse on 'OK, ' or press 'Enter'**

If a 'User name' was entered, the ITC Print Queue Manager will limit the display to only those print jobs for which the 'User name' matches the 'Owner' of the job; when 'Enter' is pressed (or 'O.K.' is clicked) without specifying a Job ID, all print jobs available for printing will be displayed.

HINT: if the 'User name' entered in the 'Print Job Popup' window is entered *incorrectly*, there may be nothing listed in the display of print jobs on the next screen; if that should be the case, simply 'Quit,' re-insert the cash card, and press 'Enter' when the 'Select User Id Request' is displayed in order to list all print jobs available for printing, and then *select the desired job visually*, based on the 'Owner' name in the list of jobs

After a few moments, the ITC Print Queue Manager displays the documents available for printing, e.g. -



The leftmost column indicates for each listed print job if it is password protected by displaying a padlock icon; print jobs with padlocks were assigned a password at the time of launching the job (see *Step 1* above).

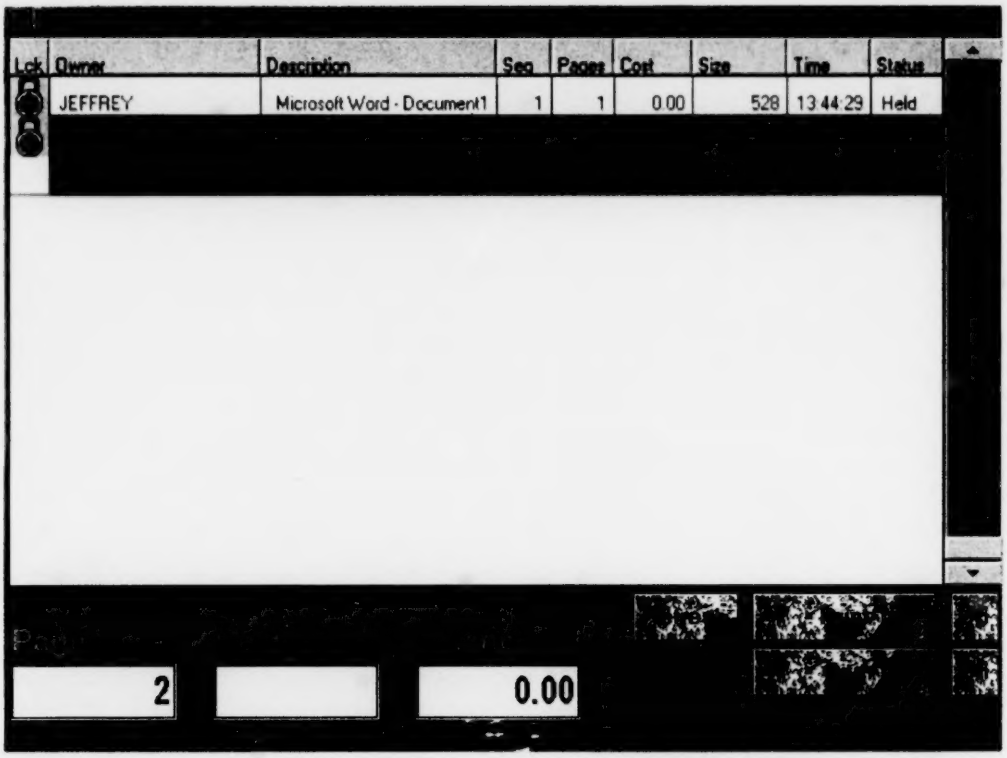
Step 5. **Select the document to be printed by moving the mouse pointer to anywhere on the line listing the desired document, then single right click on that line.**

note: it is possible to select more than one document at a time for printing by right clicking anywhere on each document listed

If the specific document does not appear on the screen, scroll down to the end of the list (by using the scroll bar at the right). If the specific document is not present, *refresh the display* by single left clicking with the mouse on the 'Refresh' button. If the specific document is still not part of the list of documents available for printing, it is possible that the print job was not launched successfully from the client, and, in this case, it is necessary to start the whole process again from a public workstation, beginning with *Step 1* (above). ***Be sure you select your own document(s) for printing!***

After a few moments, the ITC Print Queue Manager will redisplay the documents available for printing, with the selected document highlighted -

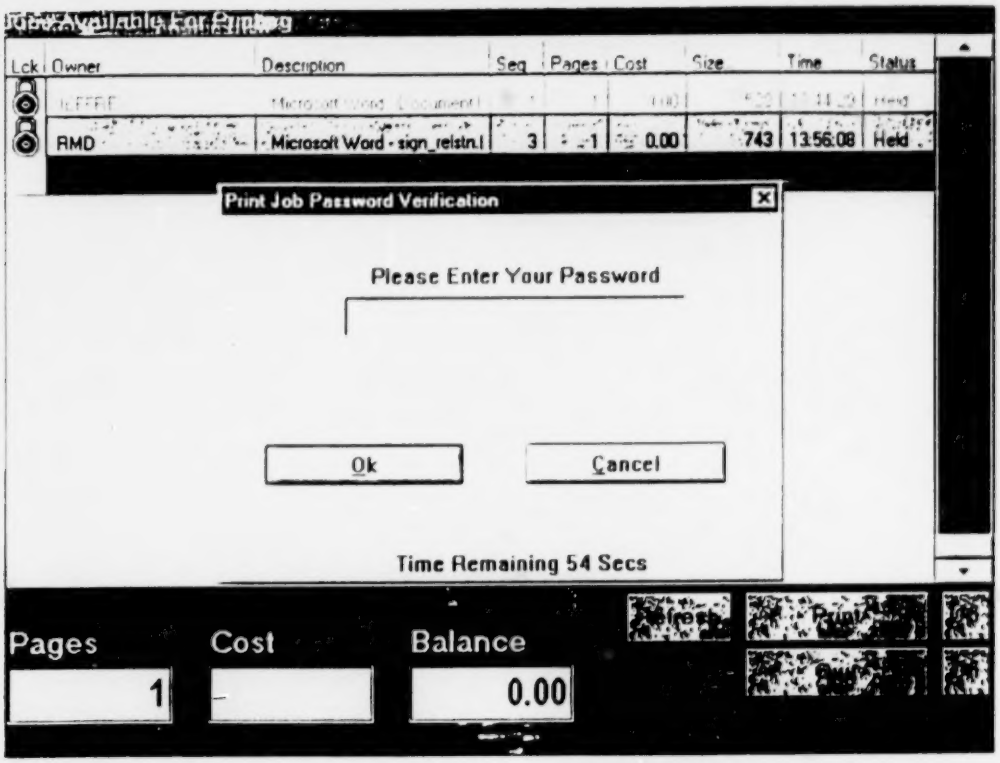
BEST COPY AVAILABLE



Please note that the ITC Print Queue Manager now redisplays the list of documents with the selected document(s) highlighted. Near the bottom of the window, the total number of pages to be printed are displayed; also, the cost of printing displayed, along with the current amount remaining on the Vendacard and the new balance on the Vendacard, **after** the document has been printed.

If the selection includes one or more password-protected print jobs, indicated by the padlock icon, a window will open, allowing entry of the assigned password (at time of launching).

BEST COPY AVAILABLE



Enter the assigned password (within the allotted number of seconds); then click on 'Ok.'

Note: if the software refuses to accept the password, the password was entered incorrectly; **if repeated attempts to enter the password and to have it accepted fail, the password was not remembered correctly!** *Library staff (including Systems) cannot determine the exact password entered. The print job which cannot be released (printed) will remain part of the list of print jobs until its time expires; i.e., it will automatically be deleted by the software after 2 hours. The* ***only*** *choice, in this case, is to launch the print job again and to assign a password which will be remembered correctly.*

Next click the 'Print' button.

If the cost of printing the pages in the selected document(s) exceeds the existing balance on the cash card, the ITC Print Queue Manager software will eject the card and not allow any pages to be printed. Replenish the Vendacard and return to a Library Public Printing Release Station, then reselect the document(s) for printing (as described above).

Documents will auto-delete after two (2) hours, **if not printed within that space of time**; i.e., if the document is no longer among those available for printing, the document will have to be 'launched' for printing once more, as described in *Step 1* above.

Step 6. **Once all documents have been selected for printing, move the pointer to the 'Print' button and single left click on it.**

At this point, the ITC Print Queue Manager reads the Vendacard and deducts the cost of printing the document; upon completion of this process the card is automatically ejected from the Cash Card Reader.

BEST COPY AVAILABLE

Step 7. **Remove the Vendacard from the Cash Card Reader.**

If there is a problem, the card can be ejected by pressing the 'CARD RETURN' button on the Cash Card Reader. In this case, please restart the Library Public Printing Release Station - see 'Appendix 1'. However, if the cash card was left in the reader, once the client has restarted and the ITC Print Queue Manager screen is displayed, the software will automatically detect that a card is in the reader and will continue processing by displaying the 'Select User ID Request' window (unless the card is jammed). If the cash card is jammed, please contact and report the problem to Library staff.

After the 'Print' button has been selected, the ITC Print Queue Manager will print the document(s) selected on the printer *physically next to the Library Public Printing Release Station.*

Step 8. **Remove printed documents from the top output bin as soon as printing has finished.**

Please note that, if the printer has been idle for one hour or longer, the printer will go through its warm up cycle and this will take less than a minute; i.e., there is no problem if this is the case and the printer's control panel LCD displays 'WARMING UP' until ready for printing. The document will be printed as soon as warm up is finished.

General Information:

The Library Public Printing Release Stations will be checked daily by Receiving staff. Paper will be replenished as required; please note that each printer has a capacity of 3,000 sheets.

If there is a problem with one of the release stations, it may well be possible to print documents successfully at another Library Public Printing Release Station. Library staff will direct the client to another station, along with an appropriate explanation.

The printers will give an indication of a problem on the LCD of the control panel; e.g., 'TONER LOW'. If this is the case, please immediately call Receiving at ext. 3437, provide the station identification (e.g., DP2, found on the CPU and the printer) and report/describe the problem with all appropriate details. If the printer LCD displays a 'device error,' Receiving staff should turn the power for the printer off and back on in order to clear the error message; (in order to do this, it is necessary to open the security cabinet); should this fail to clear the problem, a service call will be necessary.

If a stations requires restarting, Receiving staff will do this as part of the daily checking. This may also be necessary at other times.

Public Service staff may restart a station if this action appears appropriate. If the restart does not solve the problem, please report the problem immediately to Receiving at ext. 3437, provide station identification and a detailed description of the problem.

R. Daehn
98/03/03; rev. 98/05/04; rev. 98/08/11; rev. 98/08/28

Appendix 1

Library Public Printing Release Station Shutdown/Restart

If a release station is 'frozen' or exhibits other abnormal behaviour, a restart of the station may solve the problem. (If there is no 'Grapeman' on the INSERT TO ACTIVATE screen or if he will not move for several minutes, the station is frozen.)

Please note that it is not possible for Public Service/Receiving staff to shut down the station properly (as normally required for Windows 95). Security features prevent exiting from the ITC Print Queue Manager without entering the appropriate password and returning to the Windows 95 desktop with Task Bar and START BUTTON (from where a proper shut down could be initiated).

Press the 'RESET' button on the CPU.

The station will go through its startup and stop with a black and white screen display, consisting of various lines of text, ending with -

> Windows was not properly shut down. One or more of your disk drives
> may have errors on it. Press any key to ru8canDisk on these drives...

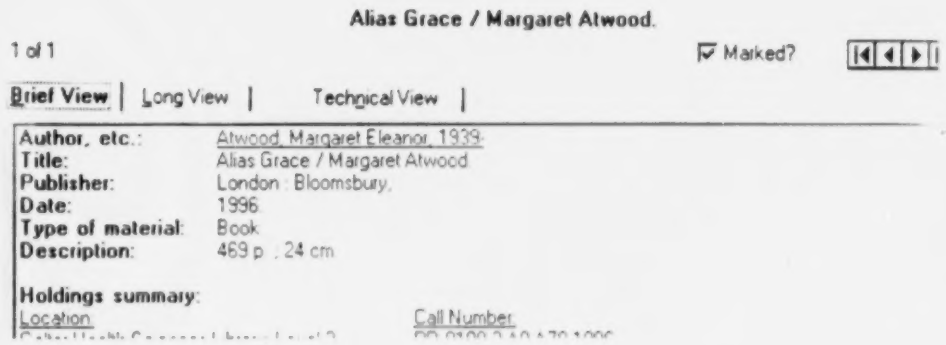
Press any key or simply wait several moments for the wait for a response to time out and for the process to continue automatically.

The station will display the 'Processing Login Scripts' window and then continue to load all programmes until the ITC Print Queue Manager monitor screen (with 'INSERT CARD TO ACTIVATE!' appears (as shown under *Step 2* above); if it does not, try the restart again but if there is no success after the second try, report the problem to Receiving at ext. 3437.

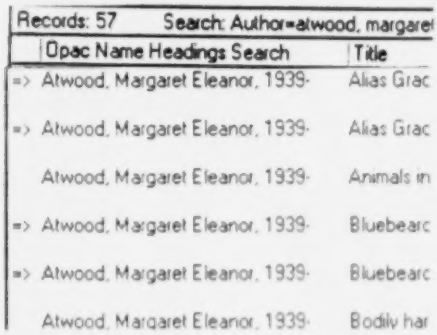
EXAMPLE: Printing, emailing, and downloading in Windows

Begin by marking the records you wish to print, email, or download.

You can mark a record either from the list of titles or from the individual title record. An individual record that has been marked looks like this:



To mark from the title list, click the right mouse button. An arrow appears to the left of each of the titles you have clicked, indicating they are marked. It looks like this:


Records: 57 Search: Author=atwood, margaret
Opac Name Headings Search
Title
=> Atwood, Margaret Eleanor, 1939- Alias Grac
=> Atwood, Margaret Eleanor, 1939- Alias Grac
Atwood, Margaret Eleanor, 1939- Animals in
=> Atwood, Margaret Eleanor, 1939- Bluebearc
=> Atwood, Margaret Eleanor, 1939- Bluebearc
Atwood, Margaret Eleanor, 1939- Bodily har

Once you mark your titles, the buttons for printing (a printer), email (a flying letter) and saving (a diskette) appear as options.

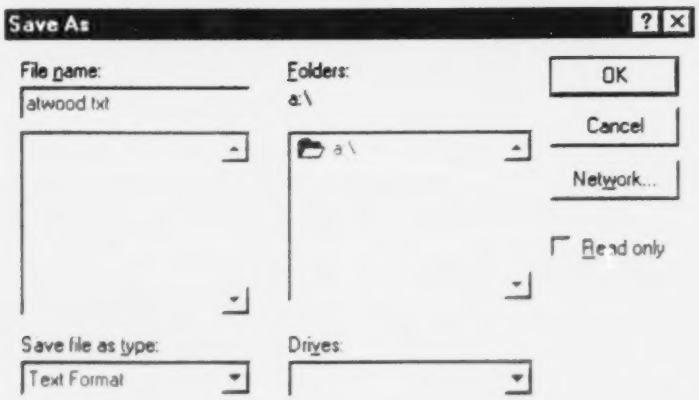
BEST COPY AVAILABLE

Printing Records

Click "print" to print the selected records on the designated printer. Titles will be printed in the Brief View format that includes only basic bibliographic information, call number, and location information.

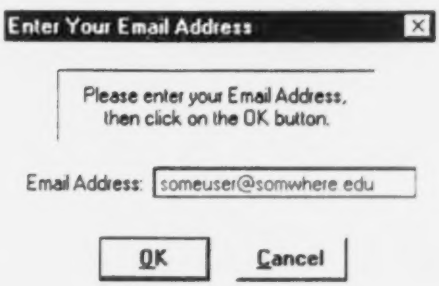
Saving Records to a Diskette

Click the diskette to save. Complete the process of naming your file. Save your file to the A: drive. Titles will be downloaded in the Long View format that includes all the information in Voyager NUcat about the title, such as subject headings and table of contents information, if it's available.



Emailing Records

Click "email," and a box appears which prompts you to enter and email address. Enter the address where you want the record sent. Titles will be sent in the Long View format.



↑ Return to Printing/Emailing/Downloading for Web and Telnet examples

→ Move on to END OF TUTORIAL

EXAMPLE: Printing, emailing, and downloading from Web

Begin by marking the records you wish to print, email, or download.

From the title list, mark titles by clicking the box to the left of title.

#	Opac Name Headings Search	Title
☑ 1	Atwood, Margaret Eleanor, 1939-	Alias Grace / Margaret Atwo
☐ 2	Atwood, Margaret Eleanor, 1939-	Alias Grace / Margaret Atwo
☑ 3	Atwood, Margaret Eleanor, 1939-	Animals in that country [by] M Atwood
☑ 4	Atwood, Margaret Eleanor, 1939-	Bluebeard's egg / Margaret A
☐ 5	Atwood, Margaret Eleanor, 1939-	Bluebeard's egg / Margaret A
☐ 6	Atwood, Margaret Eleanor, 1939-	Bodily harm (excerpts), interv

Scroll down to the bottom of the screen to the box labeled **Save Options**.

Save Options		
Records	**Format**	**Save**
◉ All on Page ○ Selected on Page	◉ Text ○ MARC	
E-mail	Email Address	

Emailing Records

1. From the **Save Options** box, click the "Selected on Page" or "All on Page" radio button.
2. Under "Format," click "Text." MARC format, the other option here, is the behind the scenes coding used in the library to catalog titles. You probably won't find it very useful.
3. Enter an email address in the box provided.
4. Click the envelope image labeled "E-mail."

Saving Records to a Diskette

1. From the **Save Options** box, click the "Selected on Page" or "All on Page" radio button
2. Under "Format," click "Text."
3. Click the image of the diskette.
4. Click "Save as" from your browser's File menu.
5. Name your file and save it to the A: drive.

Printing Records

The Web versions prints the screen you are viewing when you choose "print" from you browsers' menu.

↑ Return to Printing/Emailing/Downloading for Windows and Telnet examples

→ Move on to END OF TUTORIAL

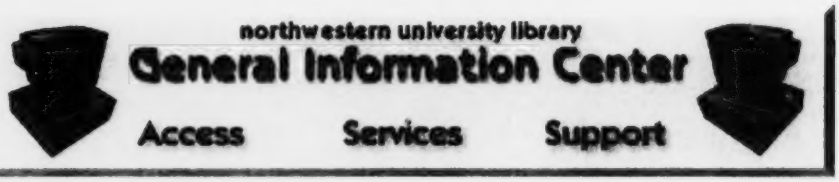
EXAMPLE: Printing, emailing, and downloading in Telnet

The Telnet version does not allow you to mark records.

Use the "print screen" option on your keyboard or save the screen as text to your diskette. You cannot mark multiple titles, nor can you print/save multiple screens at the same time.

↑ Return to Printing/Emailing/Downloading for Web and Windows examples

→ Move on to END OF TUTORIAL



Printing

- From the File menu select Print
- From the Print menu click on the OK button.

This will send the print to the GIC printer. You must then release your print at the Qview (print queue) monitor. Prints are listed by the station number. There are now two laser printers for use in the GIC: *GIC Public* and GIC *Public Large.*

QView Monitor

Press alt-H to release the print (the H will change to R). To move between printer queue columns, use the right or left arrow key. If you do not release a job within 45 minutes, it is automatically deleted from the queue. R means the job is released and will begin printing as soon as previously released jobs have printed.

'General Information Center

Northwestern
University Library
1935 Sheridan Road
Evanston, IL 60208
(847) 491-7658
✉gic@nwu.edu

Last Revised:08/21/98
Expiration: indefinite

BEST COPY AVAILABLE

libraries & collections
library hours
borrowing materials
course reserves
photocopying & printing
reference services
disability services
service request forms
services a-z

Photocopying & Printing

Vendacards
Photocopying and networked printing services are available throughout the University Library System (ULS). These services are available by using either coin currency or a Vendacard; however, the use of a Vendacard eliminates the need for change. ULS Vendacards can be purchased for $.50 from the dispensers/encoders located on the ground floor of Hillman Library, or within the Business Library, Engineering Library, Langley Library, Information Sciences Library and the GSPIA/Economics Library. Vendacards can also be purchased from the circulation desk staff in all other ULS libraries.

When a Vendacard is used, the balance is displayed, and the cost of each page is automatically subtracted. The balance can be increased at the same locations the Vendacard is purchased. It is **important** to remember that adding more than one (1) dollar at a time requires that the card be inserted into the dispenser more than once. For example, if $1.00 is put into the dispenser, a Vendacard with a $.50 value will be dispensed. If additional value is desired at that time, simply reinsert the card and additional money in order to increase the value. Check that the Vendacard has the desired value before leaving the card dispenser. A Vendacard is the equivalent of cash, so please be sure to remove it from the machine, and make sure to take it with you after each use.

Photocopiers
Self-service photocopy machines are available in all ULS libraries and on each floor of Hillman Library. All machines are both coin and Vendacard operated. Copies using coins are $.10 per page, while copies using a Vendacard are $.07 per page.

Networked Printing
Networked printing from on-line resources is available in all ULS libraries at $.07 per page by using a Vendacard. (It is not possible to use coins in order to pay for the printing charge). Information accessed from on-line resources can also be downloaded onto a diskette. If you do not have one of your own, diskettes are available for purchase at all ULS circulation desks for $1.00.

Microform Readers/Printers
Microfilm reader/printers are available on the second floor of Hillman Library, as well as in the Business Library, Chemistry Library, Engineering Library, Fine Arts Library, Information Sciences Library, and the Music Library. Prints are available via Vendacard or coin for $.25 each.

NOTICE: A warning concerning copyright restrictions
The Copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material.

Under certain conditions specified under the law, libraries and archives are authorized to furnish a photocopy or other reproduction of some materials.

BEST COPY AVAILABLE

One of the specified conditions is that a photocopy or reproduction is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy for purposes in excess of "fair use," that user may be liable for copyright infringement.

This University Library System reserves the right to refuse to accept a copying order if, in its judgment, fulfillment of the order would involve violation of copyright law.

Last Updated: 10/29/99

Yale University Library Research Workstation

Yale University Library

Printing and Downloading from SML Public Workstations

Click on any of the following links to jump to a particular point in the Guide or use the scroll bar to read the entire document.

PC/WINDOWS COMPUTERS	MACINTOSH COMPUTERS
• Printing from Standard Orbis • Printing from all telent databases • Downloading from standard Orbis • Saving Web Pages to a floppy disk • Downlading from all databases	• Selecting the nearest printer • Printing from Standard Orbis • Printing from all telnet databases • Downloading from all telnet databases • Saving Web pages to a floppy Disk

Please see a Reference Librarian for further assistance. Be sure the printer is online (SELECT button)

Return to the top

PC/WINDOWS COMPUTERS

PRINTING FROM STANDARD ORBIS:

1. Click once on the **Printer Icon** on the Screen.
2. Make sure that the switch box is set to the correct printer (A or B).

Return to the top

PRINTING FROM ALL TELNET DATABASES:

1. Select the text you want to print by highlighting it. Hold the mouse button down and move slowly over the text you want to select.
2. From the **File** menu, choose **Print Selection**.

Return to the top

BEST COPY AVAILABLE

DOWNLOADING FROM STANDARD ORBIS:

1. From the **File** menu, choose **Save Screen to Disk**.
2. Make sure you are saving to th e **a:** drive.

Return to the top

SAVING WEB PAGES TO FLOPPY DISK:

1. From the **File** menu, choose **Save As**.
2. Make sure you are saving to th e **Save As Text** format. Be Sure you are saving to the **a:** drive.

Return to the top

DOWNLOADING FROM ALL DATABASES:

Copy and paste into WRITE or NOTEPAD

Return to the top

MACINTOSH COMPUTERS

SELECTING THE NEAREST PRINTER:

1. From the **Apple Menu** in the upper left hand corner of the screen, go to **Chooser**.
2. Click on **AT Epson FX**.
3. Select the nearest printer.

Return to the top

PRINTING FROM STANDARD ORBIS:

1. In the File Menu, choose **Print Screen**.
2. Make sure that the **Print Mode** is set to **72 X 72 Draft**. **Graphics** mode will not work on these computers.
3. Click on the **Print** button.

Return to the top

PRINTING FROM ALL TELNET DATABASES:

1. Select the text you want to print by highlighting it. Hold the mouse button down and slowly move over the text you want to select.
2. From the **File** menu, choose **Print Selection**.
3. Again, make sure that the **Print Mode** is set to **72 X 72 Draft**.

Return to the top

DOWNLOADING FROM ALL TELNET DATABASES:

1. From the **Session Menu**, choose **Save Session to Disk**.
2. WARNING: The screen you are currently viewing will NOT be saved. The screen capturing begins with the next screen you look at.

Return to the top

SAVING WEB PAGES TO A FLOPPY DISK:

1. From the **File** menu, choose **Save As**.
2. Name the file and **Save as Text** format. Be sure you are saving to your floppy disk.

Return to the top

Printer jammed?

Delete all print jobs from the Spoolmaster in the **Finder** (upper left corner flashing icon) and reprint.

FOR MORE INFORMATION

- Type help from the prompt while in Anthropological Literature Online.
- See a librarian at the Reference desk in Sterling Memorial Library.
- Call 432-1775 or 432-1780.
- Email smlref@yale.edu

Return to the top

Research Workstation

Yale University Library Research Services and Collections. Last updated March 1997. Send comments to smlref@yale.edu. URL is http://www.library.yale.edu/pubstation/docs/anthrolit.html.

Printed User Instructions

A USER'S GUIDE TO PRINTING

To Retrieve Your Print Jobs

All sent print jobs will stay on the printer menu for about two hours after you send them. **We recommend you pick up your print job as soon as possible.** If you need to buy a card or add credit to your "U" card, see the box on other side for instructions.

1. **INSERT YOUR CARD**
   - Insert your copy card or "U" card into the card reader.
   - The value remaining on the card will be displayed on both the reader and the monitor.

2. **HIGHLIGHT YOUR JOB**
   - When you find it, highlight your print job by clicking on the line with the mouse.
   - Note the price for that job. The cost of printing that job will appear on the bottom of the screen.

Note: Be certain that it is your print job that you have highlighted! Check to make sure that the number of pages and cost of the print job are correct before proceeding.

3. **PRINTING THE SELECTED JOB**
   - Click on the "Print" button at the bottom of the screen. The cost will be deducted from your card and the job will be printed by the laser printer.

Note: MULTIPLE PRINT JOBS
You can select more than one of your print jobs at one time, by holding down the CTRL key while selecting your jobs. **Total cost** of printing **all** of the jobs highlighted will be displayed. Clicking on the "Print" button will deduct the total cost from your card and send **all** highlighted jobs off to be printed.

CAUTION: BE CAREFUL TO HIGHLIGHT ONLY YOUR OWN PRINT JOBS!!!

4. **EXIT**
   - When you are through printing, click on the *Exit* button and your copy card will be returned.

Questions?
Please bring your questions to Reference, Circulation, or the Photocopy Service

A USER'S GUIDE TO PRINTING

Buying a Copy Card

To print from workstations in the Library, you must use either a **copy card** or a **"U" Card** (These can also be used in photocopy machines.)

To Buy a Copy Card or Add Credit to your U card:

Go to the Photocopy Service Center, or use the vending machine.

COST FOR PRINTING IS 10 CENTS PER PAGE

Other Options

Remember that printing is only one way of saving your search results.

Depending on which resource you are using you may also be able to :

•Download results to a floppy disk

•E-mail results to your e-mail address

Send

TO SEND YOUR PRINT JOBS:

1. **Display the results of your search.**

2. **Invoke the print command**
   (method varies depending on database)

3. **Confirm print job request**
   Click on *OK* or press the *ENTER* key

4. **Enter your name**
   You will be prompted to enter your name:
   Type in a brief name (be sure your name starts with a letter -- no numerals) to label your order(s) and click on the *Next* button

5. **Enter a job name**
   You will be prompted to name the job (which will then appear on the printer screen so you can recognize and retrieve your order). You can use numbers or names for the individual jobs -- but give them names that are unique enough for you to recognize among a list of orders sent by other people. Click on *OK*.

Repeat this process with each search result
(each "print" command starts a separate print job)

6. **Go to Print Station**
   Proceed to the Print Station nearest your workstation. If there are any problems, ask for help at our reference desk.

See other side for instructions on how to **RETRIEVE PRINT JOBS.**

SAVING & PRINTING FROM BOBST WORKSTATIONS

New York University
Elmer Holmes Bobst Library

Information Bulletin **24**

You can print or save the results of your searches on BobstWeb and the CD-ROM Network workstations located in Bobst Library. In some cases, you may be able to e-mail results to yourself.

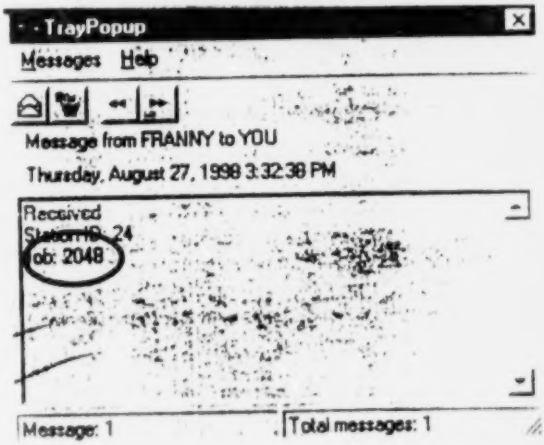
SAVING (DOWNLOADING)

1. Insert a 3.5" PC formatted diskette in the drive of the workstation. The drive letter is always a:\.
2. Follow the instructions of the database service you are using. Print guides containing detailed help for each service are located near the CD-ROM Network workstations in Reference Areas.
3. To save web-based information and BobCatPlus, use the *File|Save As* feature on the browser menu bar.
4. Press ENTER and name your downloaded file. *Be sure to give your file the **.txt** extension, eg. myfile.txt.* Each time you save results, you should choose a new name and make sure you are downloading to the a:\ drive.
5. If you wish to print your results at Bobst, take your diskette and a copy card with value added to the Electronic Resources Center on the B-Level of Bobst Library. Print jobs will only be run upon presentation of a copy card with sufficient value. Printing is $.10 per page.

PRINTING

1. Follow the instructions of the database service you are using.[1] More detailed instructions for each service are located near the CD-ROM Network workstations in Reference Areas and A-Level.
2. For web-based information and BobCatPlus, use the *File|Print* feature on the Netscape menu bar.
3. When your print order has been completed (this can take a few seconds to a few minutes, depending on the size of the file you are printing), a "pop-up window" will appear on your screen[1] (see image at right), giving you the ***Job Number*** of your print order. ***It is very important that you write down the Job Number.***
   Your print job cannot be run without the Job Number.
4. Each print order will have a separate job number.
5. When you are ready to run your print job(s), take your Job Number(s) and a copy card with value added to the Electronic Resources Center on the B-Level of Bobst Library. Print jobs will only be run upon presentation of a copy card with sufficient value. Printing is $.10 per page. [See reverse for printing availability hours]

Job Number Pop-up Window



E-MAILING RESULTS

Consult the guide for the database you are using to see if this option is available.

Please see reverse for special JSTOR instructions.

BEST COPY AVAILABLE

JSTOR

1. Use the print option from the left frame of the screen.
2. Choose the "Option 2: Adobe Acrobat Printing"
3. Choose "Economy Print."
4. Click "OK"
5. Your article will appear in a separate Netscape Window - Toggle over to view it.
6. With the article showing, choose the print option from your browser.

Saving from JSTOR:

You can save articles from JSTOR only in PDF format. This requires approximately 25K of disk space per page. You will only be able to view these pages through the Adobe Acrobat Reader.

PRINTING FAQ

Q: Where can I pick up my print job?
A: All networked printing is done in the Electronic Resources Center (B-Level).

Q: How long can I wait before running (retrieving) my print job?
A: Print jobs will be held for 3 hours from the time you give the print order. If there are fewer than 3 hours until the ERC closes, consult the chart below.

ERC Regular Semester Hours*

Monday - Thursday	Print ordered 9:45PM - 9AM	Job held until 11AM next day
Friday PM / Saturday AM	Print ordered 5:45PM Fri. -10AM Sat.	Job held until 1PM Saturday
Saturday PM / Sunday AM	Print ordered 3PM Sat - 1PM Sun.	Job held until 3PM Sunday
Sunday PM	Print ordered 8:45PMSun. - 9AM Mon.	Job held until 11AM Monday

*ERC hours may vary during holidays, Intersession, etc. Always consult published Library Hours during these periods.

Q: Where can I run print jobs I ordered after the ERC is closed or before it opens?
A: Print orders sent when the ERC is closed will be available there for two hours after it opens, on the next day that the Library is open (see chart above).

Q: How do I pay for printing?
A: Print jobs can only be run by using a copy card with value added. You can add value to copy cards at the VendaCard machines on the B-Level, the A-Level, and in all the Reference Centers. If you need to change large bills, please go to Circulation on the Main floor.

Q: Can I send print jobs from Bobst Laptops, ACF X-terminals on B-Level, or BobCat terminals?
A: No. Print Jobs can only be sent from BobstWeb and CD-ROM Network workstations in Reference Areas, Stacks and A-Level.

INSTRUCTIONS FOR NETWORKED PRINTING

EFFECTIVE JANUARY 4, 1999, THE COST for networked printing will be at the cost-recovery amount of 8 cents per page. Use your WATCARD or Guest Copy Card to pay for your printing.

CAUTION: You are asked to limit your search to 20 pages per print request. For larger searches, please download, or e-mail to your account where applicable. Large print requests will monopolize the printing workstation.

Step 1. At Your Workstation

For Most Searches*

- Choose '**Print**' from the File menu, or click on the Print icon
- In the '**Print**' dialogue box, click 'OK'
- The '**Print Job ID**' dialogue box will appear
- In the '**User Name**' box, enter your own name (can be a nickname)
- Click on '**Print It**'

Step 2. Go to the 'Print Job Release' Workstation located in the CD-ROM area. Note: Any print requests not printed within **two** hours will be automatically deleted from the queue.

***For ERL Searches** (ERL indexes are available via the TUG Journal Indexes webpage.)

- Click on '**Print**' from the buttons at the top of the screen
- After specifying which records and fields you wish to print, click on the '**Print Records**' button
- (This window displays the records as they will be printed.) Click on the '**Print**' button
- Continue with the steps above

***For CSA Searches** (Cambridge Scientific Abstracts are available via the TUG Journal Indexes webpage.)

- Click on '**Save/Print/Email Records**' near the top or bottom of the *Record Display* page

- Click on '**Print**'

- (This screen displays the records as they will be printed.) Click on the Netscape 'File' menu. Choose '**Print**'

Step 2. Releasing Your Printing (you can issue print requests from the web using the workstations in the Information Alcove or the Internet Workstations in the CD-ROM area)

1. Go to the 'Job Release' Workstation.

2. Swipe your WATCARD, remembering to keep the magnetic stripe down.

3. Type the name or nickname used earlier; click on 'OK'.

4. You will now see the job(s) you requested for printing.

   - **For one job**-- single click anywhere on the line to select it, then click on 'Print' at the bottom of the screen.

   - **For two or more jobs**--select all of them by clicking on the 'Select All' button at the bottom of the screen; then click on 'Print'

   - **To select some, but not all, of your print jobs**, double click on the ones you want; the printer will print those you have selected (no need to click on the'Print' button)

     Note: Any print requests not printed within two hours will be automatically deleted from the queue.

5. Press the 'End' button on the swipe box **to end the use of your funds**.

Step 3. Go to the Printer

Step 3. Collecting Your Printing At the Printer

- Print jobs are identified by a cover sheet with the name or nickname used

- Print jobs will be produced alternately by each printer, so be sure to check both for your printing requests

- **Be sure to wait for all your printing**. Your printing requests are assigned a 'job number' by the printing software, based on the time you executed your search and the size of the file. Because of this, all your jobs may not print together.

UNIVERSITY LIBRARY SYSTEM

The University of Western Ontario

PHOTOCOPYING & COMPUTER PRINTING

SELF-SERVICE PHOTOCOPYING & COMPUTER PRINTING

FACILITIES

Public photocopiers and computer print workstations are available in all libraries. In most of the libraries more than one photocopier is available.

HOURS OF SERVICE

All hours the library is open to users.

PAYMENT/ COST

Most photocopiers and all computer print workstations are equipped with access systems which permit the use of the Graphic Services Copy Card and Western 1 cards (these require validation at Graphic Services). Value can be added to these cards by inserting cash into the coin changer on the photocopiers which use these cards.

Card: 7 cents per copy

All photocopiers are coin operated and make change for 25-cent, one and two-dollar coins.

Cash: 10 cents per copy

MICROFORMS

Public microfilm photocopiers are available in the following libraries: Business, Music and The D.B. Weldon Library.

Photocopiers for making copies of microfiche documents are available for public use in the following libraries: Business, Education, Law and The D.B. Weldon Library.

All microform copies cost 25 cents per copy. Microform copiers will only accept quarters.

SERVICE

If you have problems with the machines or the quality of copying or need additional change, contact staff at the Circulation Desk.

continues...

OVER-THE-COUNTER PHOTOCOPY SERVICE

FACILITIES

Photocopying of paper documents is available at the Taylor Library and The D.B. Weldon Library. The D.B. Weldon Library will also make a "hard" copy from microforms. Request forms are available at all service desks.

COPYRIGHT

Copyright law allows the making of a **single copy of a journal article, or a portion of a book, for personal study or research.** Library staff will accept requests that exceed this requirement **only** if the requestor has obtained, and can provide proof of, copyright clearance from the copyright holder.

WHO

All library users.

RATES*

Photocopies: A flat rate of $5.00 per article (UWO Faculty, Students and Staff). A minimum of $15.00 per article and an additional $1.00 per page (other users).

Microform: 75 cents per exposure subject to a minimum billing of $5.00 per transaction.

METHOD OF PAYMENT

Payment in cash, by cheque or U.W.O. account (requires 21-digit Peoplesoft account number) is made when the completed work is handed over to the requestor.

Individuals using the service who charge the request to a University account number, thus initiating an interdepartmental billing, will have their account debited on a scheduled basis.

NOTE:

* Prices subject to change.

Reproduction of documents often requires more than one exposure per page of original. It is advisable to ask for cost estimation.

BEST COPY AVAILABLE

YORK UNIVERSITY Libraries

How to Print From the Internet

1. Click on the **Netscape Print** button. You will print what you see on the screen.

OR

Select the **Print** function of the database or electronic journal service you are using. For example, for a periodical database such as PsycInfo, after you retrieve your search results or mark selected records to print, choose the interface **Print** to format the records for printing. Then click on **Display for Print**. If what you want to print is on the screen, complete your print job by selecting the **Netscape Print** button.

If you are in a website using frames, place the cursor in the frame you want to print and select **Print Frame** under the **File** option on the **Netscape** toolbar.

2. A "Netware Broadcast Message" will appear on the screen. **It includes your PRINT JOB NUMBER and STATION ID which are necessary to retrieve your print.** Click on "ok" after you have recorded the print job number and station ID.

3. Retrieve your print job at the **Print Station.** Printing costs **9 cents per page**.

YORK UNIVERSITY

YORK UNIVERSITY Libraries

How to Release Your Print job

YORK UNIVERSITY

1. Find your Station ID and Print Job Number on the screen. You will find them in columns 6 and 8.

2. Double click on your Print job Number with the mouse.

3. Place your photocopy card in the reader beside the computer.

4. Check the number of pages and the cost of your print job. The cost to print is **9 cents a page.** If you have a sufficient amount of money on your card, the **"ghost"** icon will be green.

5. To Print, click on the **"Accepted Print Job"** button. You will then see your print status as ***"Printing"***

6. You have 12 hours to retrieve your print job. Once you print, your job file is automatically deleted.

YORK UNIVERSITY Libraries

Network Printing Is Now Available From Public Workstations

You now have the option to print from Yorkline*, Periodical Databases, Electronic Journals, Internet Resources, etc.

Check the posters at the workstations for instructions on how to send your print job to the printers.

Go to the Print Station on the 2nd Floor of the Scott Library, BG, Frost, Law or Steacie to pick up your print job.

***Yorkline printing is still free from selected workstations. Printing from other resources is 9 cents a page. The cost is debited from your photocopy card when you accept your print job.**

Consider using the download or email function when available and print at home!

YORK UNIVERSITY

YORK UNIVERSITY

How to Retrieve Your Print Job

1. **Insert your Library copycard**

2. **Enter your "Job Name" (name you typed when you requested your print job at the public workstation)**

3. **Click "OK". A list of jobs with your Job Name will be displayed**

4. **To select and print a single job, click the LEFT mouse button to highlight the job and click the "PRINT" button**

5. **To select and print multiple jobs, click the RIGHT mouse button to highlight each of the jobs with the same job name and click the "PRINT" button**

***Note*: You have 12 hours to retrieve your job. If you do not retrieve your job within 12 hours, it will be automatically deleted.**

Computer Center Printing Policy

Information Technology
Network Policies

Table of Contents

Chapter 1: Introduction

Chapter 2: User Accounts

2.1 Eligible Users
2.2 Appropriate Use
2.3 Inactive Accounts
2.4 Restricted Accounts
2.5 Sharing Accounts
2.6 Determining Misuse of an Account

Chapter 3: Security

3.1 Selecting a Password
3.2 Changing Your Password
3.3 Sharing and Protecting Your Data
3.4 Use of .rhosts files

Chapter 4: Rights and Responsibilities of Users

4.1 Use of Licensed Software
4.2 Use of CPU Cycles
4.3 Use of Storage Resources
4.4 Use of Printing Resources
4.5 Use of Archiving Resources
4.6 Use of Remote Resources
4.7 Use of Electronic Mail
4.8 Use of the World-Wide Web
4.9 Use of Usenet News
4.10 Use of Directory Services
4.11 Use of List Servers
4.12 Use of FTP
4.13 Use of Gopher
4.14 Appropriate Use of Copyrighted Material

Chapter 5: Abuse of Computing Resources

5.1 Theft and Vandalism
5.2 Worms and Viruses
5.3 Use of .rhosts Files
5.4 Transferring Files
5.5 Games
5.6 Disruptive Behavior
5.7 Unauthorized Use of Computing Resources
5.8 Breaking Into Accounts
5.9 Cracking Passwords
5.10 Misuse of Accounts
5.11 Unauthorized Access of User Files
5.12 Unauthorized Modification of Files
5.13 Unauthorized Broadcast Messages
5.14 Use of Computing Resources for Monetary Gain
5.15 Licensing and Copyright Infringement
5.16 Disrupting Service
5.17 CPU Usage
5.18 Exceeding Disk Quotas
5.19 Misuse of Electronic Mail
5.20 Misuse of USENET News
5.21 Violation of Remote Site Policies
5.22 Installing Software on IT Lab Machines

BEST COPY AVAILABLE

4.4 Use of Printing Resources

IT provides **networked laser printers** in each of the IT Labs and in the machine room in the basement of Parker Hall. There is a **six cents per page charge** for printing to laser printers. Printing charges are billed monthly to the user ID that sent the print request. Lab patrons must remember to logout of the lab machine when leaving the lab to avoid unauthorized printing charges. Student printing charges appear on the Bursar bill. Faculty and staff printing charges appear on the departmental telephone bill.

The printing charge includes the **divider page** that is printed at the beginning of each job. The divider page includes the user ID of the person sending the print job and the date and time the job was sent. Lab patrons should be considerate of other people's printouts and keep the pages together. Print jobs sent to the laser printer in the Parker Hall machine room may be picked up at the operator's window across from room 100.

When several print jobs are submitted to the lab printer at one time, or if the lab printer is temporarily out of service due to a low toner or a paper misfeed, the print jobs are stored in a print queue until the printer is available. Patrons can check the **status of a print job**, and delete their own print jobs from the queue, from the **Network Print Queue** icon on the lab machine desktop.

User's may **check the balance of current printing charges** using the Lab Print Charge System web page (http://www.auburn.edu/printchgs). A login is required.

Paper and toner is supplied, monitored, and installed in the IT Lab laser printers by IT Lab Support personnel. Lab patrons should not open the printers to add or remove paper or clear printer malfunctions. Lab **printer malfunctions** should be reported to the IT Help Desk at 844-5555.

Questions about printing charges should be directed to IT Lab support in 115 Tichenor Hall. Requests for credit for poor print quality (bring the copy of the printout) may also be directed to IT Lab support in 115 Tichenor Hall.

Abuse of network printer resources may result in the suspension of printing priviledges. Abuse of network printer resources includes:

- attempting to print on any media which the printer is not designed to use
- any activity which could harm the printer or print server
- any activity which would deny the service of the printer to other users

There is no charge for mainframe printing to the **line printers** in the IT machine room. Line printer output may be picked up at the operator's window across from room 100 Parker Hall.

BEST COPY AVAILABLE

http //www.georgetown.edu/uis/help/unip index html

Computing Resources
Connecting to Georgetown
Email Accounts
Year 2000
Software
Hardware
Web Development
ResNet
Telephones and Voice Mail
Video
About UIS Help

Printing with Uniprint

- How do I pay for my printouts?
- Where are the printers located?
- How do I use the Print Station?
- New Debitek Cards - Frequently Asked Questions
- Printing Problems

Still have questions?

- For Faculty and Staff issues
  - Call the UIS HelpDesk at (202)687-4949
  - E-mail help@gunet.georgetown.edu
- For Student issues
  - Call the Student HelpDesk at (202)687-4577
  - E-mail helpdesk@gusun.georgetown.edu

Copyright © 1998, Georgetown University

84

Computing Resources
Connecting to Georgetown
Email Accounts
Year 2000
Software
Hardware
Web Development
ResNet
Telephones and Voice Mail
Video
About UIS Help

Paying for Uniprint Printouts

You should use the Student Services laundry card to pay for your printouts. If you do not have one of these cards, or if your card does not have an adequate balance, "Add Value" stations are located in Reiss 238, ICC 100, Leavey Center, Village C West (X Wing), and Walsh Building. In Reiss 238, ICC 100, and Village C West (X Wing) you may add value in one-dollar increments, but all other stations require additions of $5.00 or greater.

The card itself costs one dollar. To purchase a card, press *buy a card* push button and insert a dollar bill into *Bill Acceptor* . Hit eject and pick up new card from *Card Dispenser* with a balance of $0.00. In order to have a useful card, you need to add at least one additional dollar to the card so it will have a positive balance. **Cards with a balance of $0.00 will cause the UniPrint system to return an error message**. In order to add value to a card, insert card into *Card Reader* , insert proper bill to *Bill Acceptor* , and press *Return* to eject card.

Still have questions?

- For Faculty and Staff issues
  - Call the UIS HelpDesk at (202)687-4949
  - E-mail help@gunet.georgetown.edu
- For Student issues
  - Call the Student HelpDesk at (202)687-4577
  - E-mail helpdesk@gusun.georgetown.edu

Copyright © 1998, Georgetown University

BEST COPY AVAILABLE

Computing Resources
Connecting to Georgetown
Email Accounts
Year 2000
Software
Hardware
Web Development
ResNet
Telephones and Voice Mail
Video
About UIS Help

Uniprint Printing Station Locations

Uniprint stations are located in:

- Reiss 238 - at the AITS Service Desk
- Reiss 238 Teaching Lab
- ICC 100 Lab
- ICC 218 Graduate Lab
- Harbin Lab
- LXR Lab
- New South Lab
- Village C West (X Wing) Lab
- Copley Hall Study Room (basement)
- Darnall Hall Lobby (near RHO)

Still have questions?

- For Faculty and Staff issues
  - Call the UIS HelpDesk at (202)687-4949
  - E-mail help@gunet.georgetown.edu
- For Student issues
  - Call the Student HelpDesk at (202)687-4577
  - E-mail helpdesk@gusun.georgetown.edu

Copyright © 1998, Georgetown University

Computing Resources
Connecting to Georgetown
Email Accounts
Year 2000
Software
Hardware
Web Development
ResNet
Telephones and Voice Mail
Video
About UIS Help

Printing Documents from a Uniprint Station

1. It is important to make sure you are logged in to **YOUR** Novell account. Instructions on how to access your Novell account can be found here.
2. Print as you normally do. You are prompted to enter a password. Entering a password is optional. However, choose one if you wish to password-protect your print job.
3. Go to the computer station designated for UniPrint printing.
4. Insert your card (with the stripe down) in the card reader. The card reader is located on the right-hand side of the computer station. The available balance on your card appears on the display of the card reader. It may take 15-20 seconds before the print job list appears on the computer screen.
5. You should see a list of print jobs sorted by date and time. You should also see the card balance on the computer screen.
6. Click on the print job displaying your Novell ID. If your job is not listed, click on **Refresh** button on the screen. A box on the bottom of the screen indicates the cost to print your selected job. This amount is subtracted from the balance of your card after the print job is completed.
7. Click on the **Print** button. (If you entered a password in step 2, you will be prompted to enter your password.) Your printout is printed on the printer near the UniPrint station. In some labs, there may be two printers, and the computer may send your printout to either printer.
8. Once the printing is completed, you must click once on the exit button to eject your card.
9. If you have more than one print job, repeat steps 2 through 8.

Still have questions?

- For Faculty and Staff issues
  - Call the UIS HelpDesk at (202)687-4949
  - E-mail help@gunet.georgetown.edu
- For Student issues
  - Call the Student HelpDesk at (202)687-4577
  - E-mail helpdesk@gusun.georgetown.edu

Copyright © 1998, Georgetown University

BEST COPY AVAILABLE

Computing Resources
Connecting to Georgetown
Email Accounts
Year 2000
Software
Hardware
Web Development
ResNet
Telephones and Voice Mail
Video
About UIS Help

Using Uniprint Cards - Frequently Asked Questions

In an effort to provide a more reliable service to the Georgetown University user community, AITS and Student Services have migrated to a more stable printing and laundry-card system. Users will understandably have questions regarding printing with these new print-card readers and what they can do with their old "blue-bubble" laundry/print cards. The most frequently encountered issues have been addressed below.

Can I still print using my old laundry card?

Unfortunately the older "blue-bubble" laundry/print-cards are not compatible with the new print-card readers. Users can exchange the old laundry/print-card for a new Debitek "red-bubble" laundry/print-card at 100 Harbin Hall.

What facilities have new print-card readers installed already?

Currently all AITS labs and on-campus laundry facilities feature the new and improved card system.

Where can I purchase the new laundry/print cards?

There are Debitek laundry/print-card dispensers at the following locations:

- Reiss 2nd floor corridor - outside Reiss 238
- ICC 100 computer lab
- In the Leavey Center near *Hoya's*
- Next to the security-desk in Walsh
- DPS lobby - Village C West (X Wing) ground floor

Still have questions?

- For Faculty and Staff issues
  - Call the UIS HelpDesk at (202)687-4949
  - E-mail help@gunet.georgetown.edu
- For Student issues
  - Call the Student HelpDesk at (202)687-4577
  - E-mail helpdesk@gusun.georgetown.edu

Copyright © 1998, Georgetown University

BEST COPY AVAILABLE

Computing Resources
Connecting to Georgetown
Email Accounts
Year 2000
Software
Hardware
Web Development
ResNet
Telephones and Voice Mail
Video
About UIS Help

Printing Problems in UIS Labs

During the academic year, paper supplies and toner levels are checked every two hours from 8:00am until midnight on weekdays. Paper is not refilled again until 8:00am the next day. Feel free to call the Student HelpDesk at 687-4577 from 8:30am to 9:00pm Monday-Thursday, 8:30am to 5:00pm on Friday, and 5:00 to 9:00pm on Sunday if paper or toner levels are low.

Printing Troubleshooting Tips

1. If the printer is asking you to feed a certain size paper with a message like "MF MANUAL FEED" or "FEED A4," press the **Continue** or **Select** button to tell the printer to continue printing with normal letter-size paper.
2. If the printer is indicating that the paper or toner levels are low, call the Student Helpdesk at 202-687-4577 to request a resupply. If you are unable to reach a staff member to make this request, try printing from another computer lab. For information on having money refunded for failed print jobs, click here.
3. **Do not attempt to reload the paper trays or change the toner cartridges of lab printers.** Taking or removing parts of the internal workings of the printer causes rollers to slip, fusers to scratch, and a multitude of other problems. Vandalizing printers or any other equipment in the labs is a violation of the Computing at Georgetown Acceptable Use Policy.
4. Just because your paper has not come out of the printer yet, doesn't mean it won't. Please be patient and try again in five miuntes.

Still have questions?

- For Faculty and Staff issues
  - Call the UIS HelpDesk at (202)687-4949
  - E-mail help@gunet.georgetown.edu
- For Student issues
  - Call the Student HelpDesk at (202)687-4577
  - E-mail helpdesk@gusun.georgetown.edu

Copyright © 1998, Georgetown University

BEST COPY AVAILABLE

Printing on campus

also see the distributed printing service definition

Where?

CCS provides several distributed laser printing stations on-campus. The idea behind "distributed" printing is that users can retrieve their print-jobs from any one of a number of locations:

- CCS building on Trent Lane (see a map)
- McLaughlin Library, main floor (see a map)
- FACS (room 311B)
- MacKinnon Building (room 028/030)

For example, a student may send their document from the Library's computer pool and then retrieve the document from the MacKinnon Building.

How much does it cost?

The charge for laser printing is ten cents a page. Printing is billed using a magnetic vendacard. These printing cards are only available from the dispensing machine in the CCS building on Trent Lane. There is a $1.00 deposit for each card, which may be refunded to the customer at the CCS HELP-desk in the CCS building on Trent Lane.

Need help?

Comments about the site?

INDIANA UNIVERSITY

STUDENT TECHNOLOGY CENTERS

STC Printing Services

INTRODUCTION

STANDARD PRINTING ALLOTMENTS	
Undergraduate/MBA/JD	650 pages per semester 650 pages / combined summer sessions
Graduate Students	1950 pages per academic year
Dissertation Adjustment (one time only)	500 pages (with faculty sponsorship)
Student Organization Accounts (renewed annually)	1000 pages per academic year (with faculty sponsorship)
Faculty (funded by UITS)	150 pages per semester 150 pages / combined summer sessions

Check Your Printing Allotment

Student Technology Fee Laser Printing
Policies - Use of STC Printing Services
Frequently Asked Questions (FAQ)
STC - IUB Libraries Printing Partnership
Departmental Partnerships
Tell Us What You Think

Prudent Printing Practices

For further information regarding Printing Services in the Student Technology Centers, please send e-mail to PCFCHG@indiana.edu

STUDENT TECHNOLOGY CENTERS
UNIVERSITY INFORMATION TECHNOLOGY SERVICES

Last updated August 25, 1999
http://www.indiana.edu/~stcweb/public/change/stcprtsrv.html
Comments to: stcweb@indiana.edu
Copyright 1997, The Trustees of Indiana University

BEST COPY AVAILABLE

91

INDIANA UNIVERSITY

STUDENT TECHNOLOGY CENTERS

INTRODUCTION to STC Printing Services

During the 1997-1998 Academic Year, it became apparent to the management of the Student Technology Centers that it was no longer sufficient to just stick a printer in an STC lab and let it run until it broke.

The STC team had, for some time, operated under a model that recognized that computer hardware and software technology was advancing too quickly to sit passively while technology passed us by. By late 1997, we began to recognize the need for a similar model to address a rapidly expanding demand for a highly reliable high-performance printing service as well.

The establishment of the STC Printing Services area of responsibility opened the door for a more proactive approach to providing printing services in the Student Technology Centers.

Among the goals of the STC Printing Services team are:

- Improved printer reliability through preventative maintenance
- Improved service response time when outages do occur
- No printer downtime due to shortages of toner or paper
- Better use of financial resources to serve the needs of our students
- Better availability of printer resources for students
- Expansion of enhanced services, such as color laser printing
- A better understanding of the usage patterns of our patrons
- A balanced approach to insure high-quality service to all students

An important tool for achieving these goals is the newly acquired UnipriNT Printer Management System. This system, in coordination with a printing allotment -- which grants access to printing only to those students paying the Student Technology Fee, will help us determine how best to use your Student Technology Fee to meet your growing printing needs.

Individual departments provide funding for printing by those who do not pay the Student Technology Fee. This insures that students get the full benefit for their contribution to technology at IU - Bloomington.

Departments wishing to augment their students' printing allotment may do so by making special arrangements with the Student Technology Centers.

Those students exceeding the levels of printing established as appropriate by the Bloomington Campus Information Technology Council, as augmented by the IUB Libraries, UITS, and others, will be billed each semester for printing beyond their allotment.

For further information regarding STC Printing Services, please send e-mail to PCFCHG@indiana.edu

STUDENT TECHNOLOGY CENTERS

UNIVERSITY INFORMATION TECHNOLOGY SERVICES

Last updated August 26, 1999
http://www.indiana.edu/~stcweb/public/change/intro.html
Comments to: stcweb@indiana.edu
Copyright 1997, The Trustees of Indiana University

INDIANA UNIVERSITY
STUDENT TECHNOLOGY CENTERS

Prudent Printing Practices

As a part of our concerted effort to provide our students with the most cost-effective printing environment that we can to complement our premiere academic computing environment, we are enlisting your help.

In an effort to avoid burdening the ordinary student with just one more additional cost of attending college, this document was prepared by the Student Technology Centers team to show you, the student with a limited budget, just a few of the simple things that you can do to help reduce the use of printing at IU, Bloomington.

By all means, if you need to print, then print -- that is what the printers are for, but before you print, think about whether you need to print this particular document at this time.

Below is a list of just a few of the techniques which you can employ to reduce your dependence upon printer output:

- **Ask yourself, "Do I really need to print this?"**

  Often, we print a paper copy of something without thinking. Instead, you should think about how you are going to use the information you are about to print. If you will be using it whenever you are using a computer, there are plenty of ways to store it electroncially which are much more efficient.

  For instance, the Student Lockers are ideal for this application. Data can also be put on diskette (or other removable media) and, for your temporary storage needs, there is the 24 hour scratch.

- **Use the Print Preview feature.**

  The print preview feature (found in most applications) allows you to SEE how your document will appear when printed without having to print it.

  Save yourself trips to the printer and the trash can by previewing your prints. If you don't know how to use the print preview feature, ask one of the many consultants working in the STCenters on campus.

- **Be familiar with your document before you print it.**

  It is easy to lose track of the scope of a document. After all, you only see part of a single page at any given time. Even with Print Preview, it is easy to forget that you added something at the end of your document, or that some extraneous blank pages are at the end and will be printed (and counted) even if nothing is on them.

Before printing any document, take a look at the properties of your document (in Office 2000, see "File... Properties... ".) In reveiwing your document, notice the page count. See if it matches what you expected when you used the Printer Preview button. That will go along way to avoid your having blank pages at the beginning or end of a document count against your printing allotment.

- **Spell check your documents.**

  Spell checking your document before you print reduces mistakes. You should pay close attention to the suggestions made by the spell check feature to make sure it gives you what you want.

- **Avoid printing your e-mail.**

  Most e-mail messages can be read and dealt with while you are at a computer. Others, which require further consideration before you respond to them, may be left on your shakespeare account until you are ready to answer them.

  If you need to move an e-mail off of your shakespeare system, you can save it as a file and move it to your student locker, or take it with you on a diskette.

  If you must have access to an e-mail message when you are not near a computer, then by all means print it, however if you don't, why not save the paper and use your printing allotment for your more important tasks?

- **Avoid printing Web Pages.**

  When you print something from the Web, you defeat the greatest single advantage of the WorldWideWeb -- the fact that you always have the most up-to-date information at your finger tips. If you get into the habit of printing whatever you encounter on the web, you soon forget that the data may be out-of-date -- or you end up having to print it again to get the latest revision.

  Remember, STCenters' computers, your computer at home if you have one, and the IU modem pool are all available to provide you fast and easy access to the Web. So, why bother to carry around or fill a trash can with unnecessary paper which has cost you a portion of your print allotment?

  If you must print web pages so you can have remote access to the information, remember that web pages can be MUCH LONGER than they appear to be. Always view the entire page before hititng the print key. When you print a web document, try to watch how many pages are sent to the printer.

  If you find that you need to stop output from printing see an STC Consultant IMMEDIATELY. Once these pages are printed, they

count against your printing allotment. There is no credit for output printed in error!

- **When you do print, use the duplexing feature.**

  Most printers in the Student Technology Centers are capable of duplex printing. (This means printing on both sides of the page, like a book is printed.) By using this feature when you print, you can help conserve paper.

  While this will not significantly reduce the cost of printing in the STCs (paper is but a small part of the cost of printing), it will allow the Student Technology Centers to reduce the cost of moving paper around, which will translate into lower costs in the future.

These are but a few suggestions for conserving your printing alottment. There are undoubtedly others. Please let us now if you can think of others which belong in this document.

For further information regarding STC Printing Services, please send e-mail to PCFCHG@indiana.edu

STUDENT TECHNOLOGY CENTERS
UNIVERSITY INFORMATION TECHNOLOGY SERVICES

Last updated Auguest 27, 1999
http://www.indiana.edu/~stcweb/public/change/prudent.html
Comments to: stcweb@indiana.edu
Copyright 1997, The Trustees of Indiana University

NORTHWESTERN UNIVERSITY
INFORMATION TECHNOLOGY

Lab Printing Policy

AT offers free laser printing in all of the public computing labs. However, we have established the following policies that we ask you to follow:

Special Printing Options

Special paper (resume stock, transparencies, etc) frequently cause paper jams in the printer and are therefore not allowed. Color printing is no longer available in the public labs. Both of these services can be obtained through some local Evanston merchants. However, we can neither recommend nor endorse any particular business.

The Print Queue

Jobs sent to print do not automatically go through to the printer. They are stopped at a computer next to each printer, the Pharos station. When ready to actually print your job, you will need to log onto the Pharos station using your NetID and NetID password, select your job from the queue using the mouse, and print it with the print button. When you are finished printing your job, log out of Pharos using the exit button.

Old Print Jobs

Jobs not sent through the print queue in a timely fashion will be deleted. Do **not** send your print jobs to the queue and leave them there for an extended period of time. The queue is cleaned peridoically and consultants are not responsible for deleted jobs not claimed in a reasonable time.

Print Jobs that are not claimed immediately after printing will be placed in bins next to the printers. These bins are emptied on an aproximatly quarter hourly basis. Please be sure to collect you print jobs in a timely fashion. Consultants are not responsible for lost or missing print jobs.

Print Job Size

Please be courteous to the other users of our labs. There is only one printer, which must be shared by everyone. If you have a large job, please tell the consultant, so that he can send other jobs through ahead of time, allowing others to be serviced if they have shorter jobs.

Test jobs are **strongly** discouraged. Whenever possible, please use the print preview command in the word processor or other application you are using. We recycle, but the wasted ink is still wasted. Be kind to your enviroment.

There is a 15 page print limit. If you have a job larger than 15 pages, please break it into 15 page segments, and send them to the queue separately. Then release them from the queue individually, so that other users may print in between your sections.

Students
Print Allocation

Return to Information Technology

Return to Computer & E-mail Accounts

Your University computer account permits you to use the printers in any campus computing lab. However, to encourage responsible use of paper, you are allocated 900 sheets per term.

If you take classes that require unusually heavy printing assignments, you can request an increase in print allocation through your academic major department. If the department approves your request, it will forward a Student Voucher Form to Computer Account Services, 230 David Lawrence Hall. Your Print Allocation will then be adjusted.

Note: This Print Allocation applies only to University printers. It does not apply to your own computer printer.

Monitoring Print Allocation

Once your Print Allocation has been depleted, you will not be able to use any campus printers for the balance of the term. Therefore, you should regularly monitor your Print Allocation.

This can be done through a program called USAGE, which is only available on the VMS Timesharing Service. To use this program, log into VMS and at the system $ prompt, type: **USAGE**. The system will then display the number of printed sheets used and remaining during the current term. (If you are unfamiliar with VMS, the lab consultant will assist you.)

----------Example USAGE OUTPUT----------

$ usage

Print usage report for student BHCST4 through yesterday:
Total of 4 sheets printed this term.
Current printing allocation for the term is 900 sheets.
0.4% of this allocation has been used, with 896 sheets remaining.

Updated January 6, 2000
Contact the Help Desk (412) 624-HELP [4357] for questions or comments about this site.
Copyright © 1999 University of Pittsburgh. All Rights Reserved.

97 BEST COPY AVAILABLE

http://www.yale.edu/acs/printing/

Academic Media & Technology

ITS - Yale University

AM&T Home | AM&T Jobs | Search | ITS Home | YALE Home
Organization and Staff | Network & Machine Status | Overview of AM&T Services

Cluster Printing

Cluster Printing Information
Read an overview of the printing system in Yale's computer clusters.

ITS Printing Account Management
Allows those with a PrintID to electronically add funds to or monitor the status of their ITS Printing Accounts. If you do not have a NetID, you can create a PrintID from this page.

Printing From Your Room
Instructions on how to print to cluster printers from the convenience of your personal networked computer.

BEST COPY AVAILABLE

ACS HELP

ITS Distributed Printing

Modified 11 October 1999

How do I get a printing account?

For Faculty, Staff, and Students:

You already have one! Your printing account uses your NetID as your PrintID, and your NetID password as your PrintID password. If you do not know your NetID, you can follow the Look up your NetID link from the ITS Print Account Management page.

You will log in to a print station using your PrintID and password. If you have never used email or the Pantheon, you may not have a password. Password and account issues can be resolved by User Accounts at 221 Whitney Avenue (432-6627).

For Visitors:

Using a web browser, go to http://www.yale.edu/printing/ and follow the Create a PrintID link.

Enter your full name, permanent address, and email address (if you have one). Then pick a 12 character alphanumeric password that you will use to log into the print system. Click on the submit button, and you will be assigned an account with a unique PrintID. Use your PrintID and password to log in to a print station.

How do I put money in my account?

There are currently three ways to add funds to a print account:

Cash or Check: You can add money to your printing account by going to an authorized RIS cashier. They locations are: the RIS Service Counter at 155 Whitney Avenue, the Microcomputer Sales Center at 175 Whitney Avenue, and the Digital Media Center for the Arts at 149 York Street.

Bursar Billing: Most students automatically have this option. Use a web browser to go to http://www.yale.edu/printing/ and follow the ITS Printing Account Management link.

Departmental Charge Account: A departmental business manager can arrange for certain NetIDs to be able to charge printing to a Yale department. Visit the ITS Print Account Management site and follow the appropriate links.

How do I print?

- Many printers, including those in the AM&T Student Computing clusters, take advatage of the print account system. A list of cluster locations and hours can be found at http://www.yale.edu/cluster/.

You can print to any laser printer from a Windows or Macintosh computer in the cluster as you normally would.

Each printer has an associated print station that is located next to the printer. Once you have sent your print job walk over to the print station and enter your PrintID and password.

You will now be able to see all the jobs in the queue and how much money is in your account. The list of print jobs shows the name of the job, your username or the name of your computer, the number of pages in the job, and how much it will cost to print it.

Click on the job you want to print and click on **"PRINT"**. If you have enough money in your account, the job will begin printing.

For your protection, when you are finished using the print station click on **"EXIT"** to logout. Otherwise, you will automatically be logged out after 30 seconds of idle time.

What if I need a refund?

If you were charged for a page that did not print out or a defective page, you should contact a Computing Assistant or other computing staff at one of the following computer clusters: Cross Campus Library, Connecticut Hall, and Dunham. See http://www.yale.edu/cluster/ for locations and hours.

If you are leaving Yale permanently, you may request a refund of any remaining money in your print account. Go to one of the clusters or an authorized RIS cashier. You'll need to provide the reason for a refund and your permanent address. RIS will process your refund.

What do I do with this Vendacard I bought last year?

The Vendacard print system has been phased out. If you have a Vendacard for the purpose of printing in Academic Computing Clusters (not a library copy card!) with money on it, you can give it to a Computing Assistant at Cross Campus Library, Connecticut Hall, or Dunham (see http://www.yale.edu/cluster/ for locations and hours). A Computing Assistant will help you fill out a form listing your contact information and your PrintID. RIS will transfer any money on your card to your print account.

Comments?

Send any comments to suggest@yale.edu.

ITS Print Account Management

▼ **Add Funds to Print Account**
Bursar charge
Departmental charge
Credit card
Cash, check, other

▼ **Print and Credit Transactions**
Show my transactions

▼ **NetID Tools:**
Look up your NetID
Activate NetID or change password
ITS User Accounts Office

▼ **For Visitors**
Create a PrintID

▼ **Documentation**
Cluster Printing Information
Printing from your own computer

▼ **Administrative Functions**
Process Departmental Charge Requests

©1998,1999 ITS Academic Computing

ITS Print Account Management

This Web site allows you to

- add funds your printing account
- look up your past debits and credits to your print account
- establish a PrintID if you are a visitor and do not have a NetID.

All on-line print account management functions require you have a ***PrintID***. For most users, this is the same as a NetID and uses the same password.

The ITS Distributed Print System is managed by Reprographics and Imaging Services (RIS).

Please select a task from the bar on the left.

Evaluation

The University of Chicago LIBRARY

Using the Library | The 1998 Survey of Faculty and Students

The 1998 Survey of Faculty and Students was conducted in the Winter Quarter of the 1997/98 school year. It was designed to discover how much students and faculty know about Library services, how they use those services, and how satisfied they are with the Libray's performance in various areas.

Questionnaires were sent out on January 8, 1998 to every member of the faculty (1200 surveys) and to a random sample of students (1350 surveys). The Registrar's Office provided a list of randomly selected students: 20% of students from the College and 10% of graduate students from each of the divisions and professional schools. Second copies of the surveys went out to non-respondents at the end of February.

The survey yielded a total of 940 responses altogether, representing an overall response rate of 38%. 465 faculty members returned their surveys, for a faculty response rate of 39%. 475 students responded to the survey, for a student response rate of 35%.

A note on the breakdowns used in the reporting of results: Regenstein Disciplines include Business, Divinity, Humanities, Social Sciences, and Public Policy. Other includes Law, SSA, and those who did not indicate a division.

Original Surveys:

For Faculty

For Students

Results:

1. Use of the University

2. Use of the Library's Services

3. Reference, Privileges, and Reserve Facilities

4. Faculty Loans and LIBRA

5. Computer and Networking Use

6. Printing and Photocopying Services

Entire set of results

Notes

Questions and comments concerning the survey should be directed to Elisabeth Anderson, Assistant to the Director, eanderso@midway.uchicago.edu, 773-702-3732.

Return to: Using the Library

This page was last generated on 01 October 1999 at 8:44 PM CDT by www@lib.uchicago.edu
The URL of this page is: http://www.lib.uchicago.edu/e/using/survey98.html

6. Printing and Photocopying Services Results

Have you used the UnipriNT networked laser printers in the Library to print electronic information?

Used UnipriNT Networked Laser Printers

	Total	Faculty	Graduate	Undergrad
Yes	16%	9%	25%	20%
No	84%	91%	75%	80%
Total	100%	100%	100%	100%
Responses	897	440	250	207

If yes *[used UnipriNT]*, were you satisfied with the system?

Satisfied with UnipriNT

	Total	Faculty	Graduate	Undergrad
Yes	63%	59%	63%	66%
No	37%	41%	37%	34%
Total	100%	100%	100%	100%
Responses	143	34	68	41

Collation of Comments on UnipriNT

- 7 Keep UnipriNT
- 31 Do not like cost
- 17 Cumbersome
- 11 UnipriNT not well serviced
- 3 Don't know about Uniprint
- 10 Misc UnipriNT comments

Did you use a photocopier in the Library during Autumn Quarter 1997?

Used Photocopier in Library

	Total	Faculty	Graduate	Undergrad
Yes	82%	78%	83%	92%
No	18%	22%	17%	8%
Total	100%	100%	100%	100%
Responses	931	458	264	209

Used Photocopier in Library by Division/Year

Faculty	Total	Regenstein Discipline	Phys/Bio Sciences	Other
Yes	78%	74%	83%	59%
No	22%	26%	17%	41%
Total	100%	100%	100%	100%
Responses	458	208	223	27

Graduate	Total	Regenstein Discipline	Phys/Bio Sciences	Other
Yes	83%	80%	89%	91%
No	17%	20%	11%	9%
Total	100%	100%	100%	100%
Responses	264	175	55	34

Undergrad	Total	1st Year	2nd Year	3rd Year	4th Year
Yes	92%	77%	92%	100%	100%
No	8%	23%	8%	0%	0%
Total	100%	100%	100%	100%	100%
Responses	209	56	48	51	54

If yes *[used photocopier]*, how would you rate the copy quality?

Rating of Photocopy Quality

	Total	Faculty	Graduate	Undergrad
Adequate	77%	76%	72%	85%
Inadequate	23%	24%	28%	15%
Total	100%	100%	100%	100%
Responses[9]	749	338	219	192

Rating of Photocopy Quality

Faculty	Total	Regenstein Discipline	Phys/Bio Sciences	Other
Adequate	76%	78%	76%	64%
Inadequate	24%	22%	24%	36%
Total	100%	100%	100%	100%
Responses[9]	338	148	176	14

Graduate	Total	Regenstein Discipline	Phys/Bio Sciences	Other
Adequate	72%	73%	71%	72%
Inadequate	28%	27%	29%	28%
Total	100%	100%	100%	100%
Responses[9]	219	139	48	32

Undergrad	Total	1st Year	2nd Year	3rd Year	4th Year
Adequate	85%	88%	91%	88%	74%
Inadequate	15%	12%	9%	12%	26%
Total	100%	100%	100%	100%	100%
Responses[9]	192	43	44	51	54

Did you take a complaint to the IKON (copy/printing vendor) Customer Service Desk 1997? in Regenstein during Autumn Quarter 1997?

Complained to IKON Customer Service Desk

	Total	Faculty	Graduate	Undergrad
Yes	5%	4%	8%	4%
No	95%	96%	92%	96%
Total	100%	100%	100%	100%
Responses	874	420	253	201

If yes *[took complaint to IKON]*, was the problem solved to your satisfaction

IKON Resolved Problem Satisfactorily

	Total	Faculty	Graduate	Undergrad
Yes	66%	57%	68%	75%
No	34%	43%	32%	25%
Total	100%	100%	100%	100%
Responses[10]	41	14	19	8

Collation of Comments on IKON service

7 Unhappy with service
12 Servicing of machines is poor
4 Don't know about IKON
4 Misc IKON comments

What additional fee-based copy/printing services would you like to have available in the Library?

Collation of Suggestions for Additional Fee-based Copy Services

31 Double-sided copiers
27 Color copiers
24 More copiers/service points
23 Misc fee-based services comments
23 Sheet-fed copiers
19 Better quality copiers
16 Services should be less expensive or free
15 Article retrieval/copying service
14 No new services needed
10 Microformat printing
9 Transparency/Overhead printing
8 Scanners
5 Fax machines
4 Ability to handle larger formats

Public Printing in the Library

Introduction:

As you are well aware, the thermal printers that we have been using at selection public work stations for a number of years now are rapidly disappearing.

The following is a description of the replacement system that we are going to implement as soon as the hardware and software can be acquired.

Description:

We are going to install five, high speed, high quality laser printers in the Library. There will be one each located on the second floor, first floor, Docs Centre, Wellington County room, and Vet. Science Library. Every public access computer (Computer Based Indexes *and* Library Catalogue) in the Library will be able to print to them. They will be connected to the same system that Computing Services uses for their printing.

This means that a Library user could ask the system to print information from any software package (Voyager, the web, Computer Based Indexes, etc.). They would be asked to identify themselves using whatever id. they choose (name, pseudonym, id. number) and they would be able to go to any print release station on campus to retrieve their print out. The system would require that they identify who they are using the same idenification as they used when they requested the print, swipe their Vendacard, and their print job would be generated at the printer connected to that print release station. If they do not go to a release station and print there document, it will be purged from the system after a few days.

This also means that we will be charging 10 cents per page for printing.

Until the spring semester, users will be required to get and use a CCS Vendacard in order to use the printers. We are intending to go to a single Vendacard for Library photocopying and CCS/Library computer output; however, it is not possible to do this yet since all the cards have to be reprogrammed and there are too many of them outstanding to recall them all before the beginning of the spring semester. *Please do not spread this last information around until we publicly announce it.*

Another option would have been to use the Library Vendacard but it would be rather difficult to explain to everyone that "for *this* printer you need a Library Vendacard and for *that* one you need a CCS card".

Since there are times (after 5pm and on weekends) when CCS is not open, this would have meant that Library users may not have been able to get their printouts. To eliminate this situation, we are going to install another Plasticashier machine in the Library that will allow the replenishment of the CCS cards. When we move to the single card, this machine will stay in the Library and replace one of the older machines.

Building Maintenance staff will service the printers. The printers will have 3,100 page hoppers in them. The Library will collect the revenues that these printers generate and apply those revenues to the continuing maintenance and eventual replacement of the hardware.

George Loney, Manager, Systems Services

updated by Ralph Daehn 97/12/22

Comments?

If you have any comments on the above, please send them to G. Loney, or R. Daehn.

Library Distributed Printing

Project Schedule

Date	Event
6 October 1997	Meeting with Ikon Office Solutions, ITC Systems , and CCS to determine feasibility of: (a) Library and CCS cash card format harmonization (b) public printing in the Library
10 October 1997	Successful demonstration of use of Library Vendacard and CCS cash card with harmonized coding
October - December 1997	Discussions/interactions/meetings with CCS
18 December 1997	ITC/SFU printer control software testing and evaluation
19 December 1997	testing/evaluation debriefing with CCS; CCS recommendation to implement the ITC Print Queue Manager software for Library distributed printing
19 - 23 December 1997	release station/server software requirements assessment; finalization of equipment/software orders; arrangements for UTP wiring with CCS (for network access); arrangements with Library Receiving staff for hardware upgrades/setup/furniture, etc.
5 - 31 January 1998	setup public printing stations; installation of UTP wiring
1 - 13 February 1998	installation and configuration of client and server software
16 - 20 February 1998 (Winter Break)	finalization of hardware/software installation (ITC Print Queue Manager upgrade, beta version); testing; staff training (Public Service, Receiving, Systems)
23 Feburary - 30 April 1998	public printing operational in 'beta mode'; additional software setup, as required
end of April 1998	installation of ITC Print Queue Manager upgrade, finalized version; Library/CCS cash card format harmonization (not implemented as of 98/10/06
1 September 1998	Library Public Printing operational; implementation project concludes and service support (incl. further development/upgrading) begins
10 September 1998	start of charging for Library Public Printing ($0.10/page)
4 December 1998	duplex units added to each HP LaserJet 5si printer at all five release stations
1 September 1999	software upgrades: server NLM version 5.13j, client and key software version 5.5.B3, print job popup version 5.13c
18 October 1999	Multimedia Lab release station added
29 November 1999	Library Centre for Students with Disabilities release station added

R. Daehn, Project Leader
99/11/29

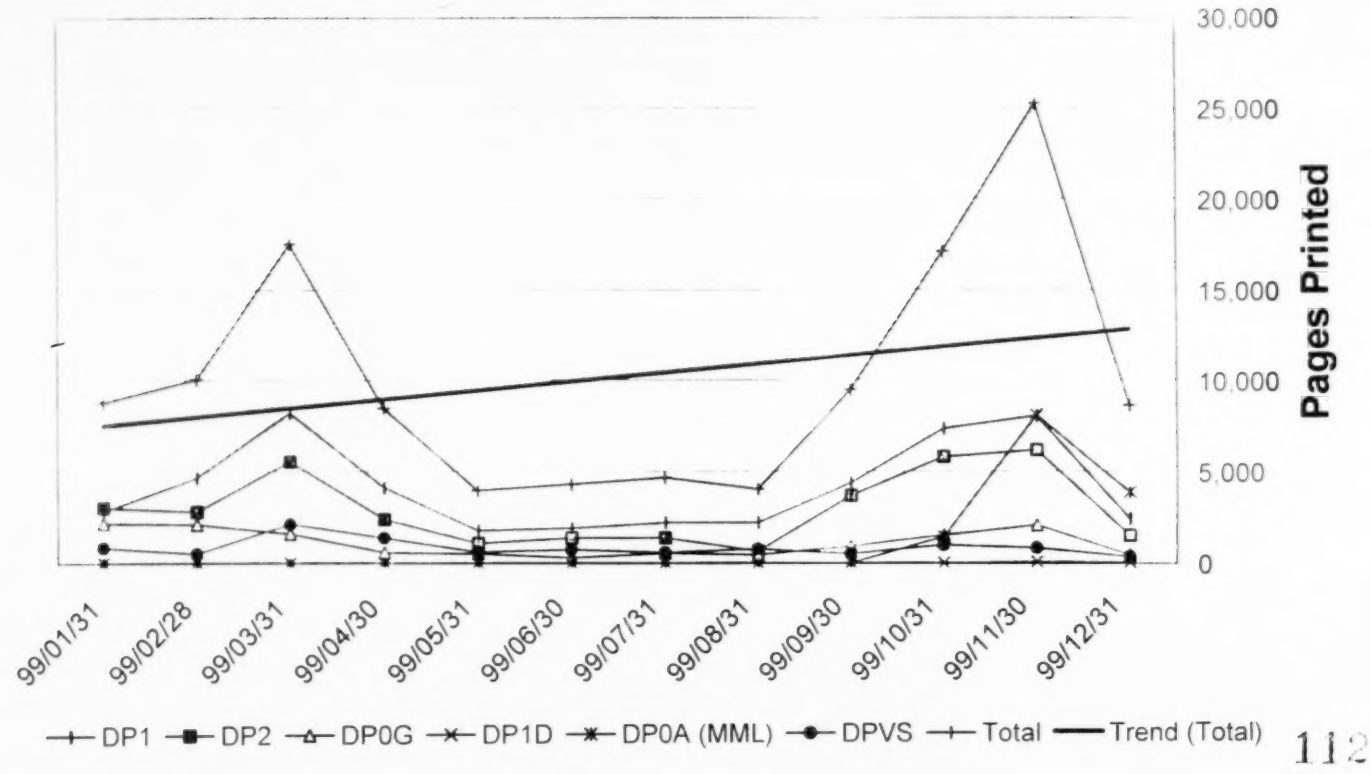
BEST COPY AVAILABLE

University of Guelph Library Public Printing

1999

Pages Printed

Total and by Release Station



BEST COPY AVAILABLE

UNIVERSITY OF GUELPH

http://www.lib.uoguelph.ca/SysRMD/pprn_ind.htm

Library Public Printing Page Count

Interpretation:	DP1	McLaughlin Library	Floor 1
	DP2	McLaughlin Library	Floor 2
	DP0G	McLaughlin Library	Floor 0 - Doc's & Gov. Pub.
	DP0A	McLaughlin Library	Floor 1 - Multimedia Lab (from 99/10/18)
			Floor 0 - Special Coll. (to 99/10/17)
	DP1D	McLaughlin Library	Floor 1 - Library Centre for Students with Disabilities
	DPVS	OVC	Veterinary Science Section

Count	running page count, for **each** release station (starting with '0' when printers were put into service)
Printed	number of pages printed since the previous date, for **each** release station
Total Printed	total number of pages printed since the previous date, for **all** release stations
Running Total	running page count, for **all** release stations (starting with '0' when printers were put into service)

Date	DP1		DP2		DP0G		DP1D		DP0A		DPVS		Total Printed	Running Total
	Count	Printed	Count	Printed	Count	Printed	Count	Printed	Count	Printed	Count	Printed		
99/12/31	65,328	2,418	46,640	1,504	17,550	455	70	22	13,568	3,864	12,380	358	8,621	155,536
99/11/30	62,910	8,042	45,136	6,178	17,095	2,055	48	48	9,704	8,074	12,022	836	25,233	146,915
99/10/31	54,868	7,356	38,958	5,799	15,040	1,518	0	0	1,630	1,436	11,186	979	17,088	121,682
99/09/30	47,512	4,378	33,159	3,663	13,522	928	0	0	194	2	10,207	493	9,464	104,594
99/08/31	43,134	2,178	29,496	640	12,594	458	0	0	192	0	9,714	745	4,021	95,130
99/07/31	40,956	2,176	28,856	1,348	12,136	550	0	0	192	0	8,969	577	4,651	91,109
99/06/30	38,780	1,916	27,508	1,356	11,586	296	0	0	192	0	8,392	728	4,296	86,458
99/05/31	36,864	1,784	26,152	1,075	11,290	514	0	0	192	0	7,664	602	3,975	82,162
99/04/30	35,080	4,124	25,077	2,379	10,776	578	0	0	192	2	7,062	1,366	8,449	78,187
99/03/31	30,956	8,208	22,698	5,556	10,198	1,580	0	0	190	0	5,696	2,138	17,482	69,738
99/02/28	22,748	4,642	17,142	2,798	8,618	2,082	0	0	190	4	3,558	522	10,048	52,256
99/01/31	18,106	2,784	14,344	3,012	6,536	2,156	0	0	186	0	3,036	814	8,766	42,208
98/12/31	15,322	1,629	11,332	1,030	4,380	404	0	0	186	4	2,222	263	3,330	33,442
98/11/30	13,693	3,481	10,302	3,392	3,976	1,720	0	0	182	11	1,959	518	9,122	30,112
98/10/31	10,212	3,989	6,910	2,019	2,256	638	0	0	171	22	1,441	432	7,100	20,990
98/09/30	6,223	6,223	4,891	4,891	1,618	1,618	0	0	149	149	1,009	1,009	13,890	13,890
98/05/01	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Printing and Cost Recovery

Libraries and Computer Labs at Vanderbilt

With broad acceptance and use of the campus network, the internet, electronic resources, and lab facilities, there have been significant and consequent increases in the volume of printing from computer workstations across campus. Decisions about charging for such printing support are made locally, and charges have been implemented in different ways across campus. As this has become more of an issue for a number of the organizational units involved, a review of the current situation is desirable. Decision-making at the local level can then be informed and influenced by campus-wide realities.

Current Environment

Three categories of facilities provide printing support for the computer workstations housed in those facilities--limited-use computer labs, open computer labs, and libraries. Data collected in this study is included in the accompanying table and response summary.

Limited use student computer labs are provided in the schools of Blair, Engineering, Medicine, Owen, and Law. (Nursing appears to have a lab, but I did not receive a response to my inquiries about lab use and printing.) In each of these cases, use of the lab is limited to students enrolled in the degree programs and/or courses offered by the school. Much of the work is directly course-related. No charges for printing are imposed at Blair, Medicine or Owen, and pressures to initiate such charges are not great. The Law Lab does charge for printing, and it is managed through accounts established for each student, and it is software controlled. Law students pay $.07 per page after they exhaust 200 free copies per year. Engineering has decided to initiate charging for printing in the coming academic year; they are currently considering mechanisms for such an implementation.

Open computer labs are provided by Peabody and by the College of Arts and Science. Students, faculty and staff from across the university may use these facilities. Labs are used for course assignments, paper writing, e-mail, and web exploration. Charges for printing have been implemented in these facilities over the last year or so. In both cases, payment for printing is managed through the honor system with users paying as they leave the lab. Each of these two schools' facilities charges $.05 per page; A&S permits 10 free pages per visit.

The libraries provide workstations whose primary function is supporting access to the libraries' electronic resources, services, and to the internet. The libraries are open to the entire university community, and in many cases they support significant use by external clientele. The libraries do not currently charge for printing, but concern about rising costs is leading to review of this situation. The Law Library provides only dot matrix printers for its public workstations, all other libraries support laser printing from some subset of their publicly available workstations.

Costs of Printing

Few units surveyed had very precise figures for the volume of printing done or for the associated costs. Using rough estimates, it appears that the labs have a total volume of around 3 million pages per year, the libraries around 1.5 million pages. Volume per printer in the libraries runs between 50,000 and 100,000 copies per year. The libraries **supply** costs for printing vary from an estimated $.01 to $.03 per page.

Charging Options

Honor system

The honor system encourages students and others to pay for the resources that they use. Encouragement to consider the responsible use of facilities and supplies provided can communicate to students that the resources are not free. The experience of the facilities where this has been tried has been positive. Most students pay, and the total volume of printing declines as users think about the implications of what they're doing. Owen relies on substantial education efforts to encourage conservative printing. The College's printing volume has declined significantly since implementing its honor system. This is the least expensive and lowest hassle approach.

Networked printing to centralized point where payment is collected

This approach still relies on students to pick-up their printing before payment can be collected. Some printing may be done that is not picked up and not needed. Payment can be made by whatever method the staffing point currently uses for taking in funds. In the libraries, this would probably be at the circulation desks, and oversight of public printing would become a more immediate task than it is now, with sorting out and distribution of print jobs. This approach is less convenient for users and less convenient for staff, but it might be expected to minimize some of the unnecessary printing currently done.

Dispersed printing to print payment stations where payment is made

This approach is the best if we are concerned about retrieving all of the funds due for printing and maximizing the elimination of unnecessary printing, since the print job does not get completed until it is paid. However, the cost of providing such services in hardware, software, and staff

time will add significantly to the supply costs currently incurred in providing printing services. The exact costs for this option will depend upon the system selected and the payment options provided.

Of the systems reviewed which provide this kind of printing support, UniprinNT gets the best reviews and seems to be widely available. ACIS has expressed the willingness to pursue support for this option, permitting purchase of a site license (costs shared among participating units), with basic system support coming from ACIS. The units would need to support the ongoing logistical issues for supporting the system. ACIS is also interested in pursuing a software system that has been developed at Cornell as a possible alternative to this approach. And Xerox Corporation is interested in making a presentation on campus about their Network Print Management services.

Merely for the sake of understanding the relative magnitude of costs here, if we had annual operating costs for a print management system that totaled $50,000, and if we assume 1.5 million pages printed, the cost per page for the management system alone equals $.033. It is not clear that there is substantial value-added from this approach because so much would depend on actual costs and printing quantities. It is interesting that the Law School's printing volume dropped from 500,000 pages per year to 125,000 pages per year when charging was implemented. Our estimates for the number of copies to use in determining per copy charges should be calculated conservatively if we were to need to cover some set of relatively fixed annual operations costs.

Payment Options

Charges made through student accounts and VUnet ID

ACIS is currently investigating the printing support provided at Cornell as a model which we might consider. Availability of software vs. the need to develop it here may be the significant question. In this scenario, users of networked systems would identify themselves through their VUnet ID, and charging would be passed on to their student accounts. It would be possible to create debit funds to permit charging against. The primary cost with such a scenario will be staff time in supporting the software, account maintenance, etc.

University debit card

The university's debit card could be used with card readers on print stations. (This has long been a facility desired by students for the libraries' photocopiers.) The primary stumbling block for the implementation of such a capability is the overhead costs of the university's maintenance of the debit card system. Where the $3000 annual maintenance cost for a POS (point of sale device) is involved, as much as $.04 per page might have to be added to the price for cost recovery. It is not entirely clear exactly which devices and operations charges would accrue for a relatively complex installation involving various readers and POS devices, but the costs are expected to be significant. We would also need to work with the card office to provide debit card capability, sending people to the Card Office, for people unaffiliated with Vanderbilt and for Vanderbilt people who do not currently use the debit card capability of their ID card.

Library VendaCard and Coin Systems

We could extend the use of our VendaCard system within the library to work with the print stations. The costs are not as high, and we would continue to be pressed to make accommodation for the Vanderbilt Card debit capability.

Option Summary

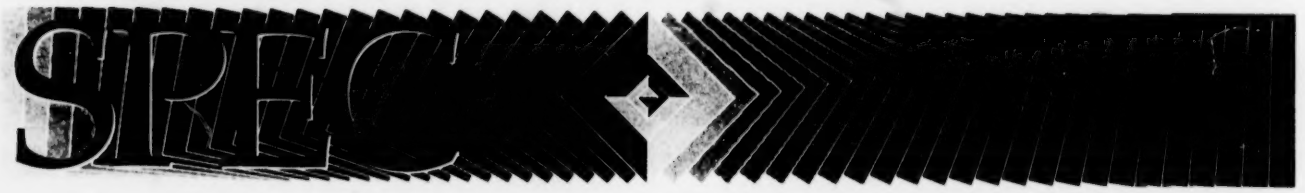
The following table provides a set of guesses about the relative performance of various options as they relate to a set of goals we might identify related to cost recovery for printing.

Option	User Convenience	Cost Recovery at $.05-.07	Cost Recovery at $.10	Minimize unnecessary printing	Eliminate unretrieved printing
Honor system	High	Yes	Yes	Maybe	No
Networked printing through centralized point	Medium	Yes	Yes	Yes	No
Disperse printing to print/payment stations					
Vunet ID	Medium to low	?	?	Yes	Yes
Vanderbilt Card	Medium	No	Maybe	Yes	Yes
Vendacard	Medium to low	Maybe	Yes	Yes	Yes
Coin	Medium to low	Maybe	Yes	Yes	Yes

In a recent e-mail exchange among several lab managers on campus, it was proposed that we align a comparable charging structure across the open labs and libraries to eliminate printer shopping around campus, and that we review the success of various 'honor' system efforts in covering supply costs over the coming academic year. With the additional information, and providing time to study possible ACIS involvement with larger solutions, we should be in a better position to decide whether or not to move forward with hardware and software investments that would commit us to higher per copy costs.

Update 6.23.99 by Ric Wilson

BEST COPY AVAILABLE



SELECTED RESOURCES

BEST COPY AVAILABLE

ASSOCIATION OF RESEARCH LIBRARIES
OFFICE OF LEADERSHIP AND MANAGEMENT SERVICES

Books and Journal Articles

Moothart, Thomas, and Lindsey Weiss. "Popularity Has Its Costs: Charging for Public Printing at Colorado State University." *Colorado Libraries* 25, no. 1 (Spring 1999): 15–18

Park, Betsy. "Charging for Printouts." *Bottom Line* 10, no. 4 (1997): 148–52.

Taylor, Suzanne, comp. *Provision of Computer Printing Capabilities to Library Patrons.* SPEC Kit 183. Washington, D.C.: ARL Office of Leadership and Management Services: 1992.

Vidmar, Dale J., Marshall A. Berger, and Connie J. Anderson. "Fee or Free? Printing from Workstations in the Library." *Computers in Libraries* 18, no. 5 (May 1998): 26–30.

Vidmar, Dale J., Marshall A. Berger, and Connie J. Anderson. "Implementing a Cost Recovery System for Printing at Southern Oregon University Library." *Reference Services Review* 25, no. 3–4 (1997): 97–101.

Reviews of specific printers can be found in such magazines as *Consumer's Digest, Consumer Reports, PC/Computing, PC Magazine,* and *PC World.*

SPEC KIT ORDER FORM

QTY	TITLE		
	SP254	Managing Printing Services	
	SP253	Networked Info Services	
	SP252	Supprt Staff Classifictn Studies	
	SP251	Electronic Reference Service	
	SP250	TL10: Educating Faculty	
	SP249	Catalogng of Resrces Digitized	
	SP248	Licensing of Electronic Prodcts	
	SP247	Management of Lib Security	
	SP246	Web Page Devel & Managmnt	
	SP245	Electronic Reserves Operations	
	SP244	TL 9: Renovatn & Reconfigurtn	
	SP243	TL 8: Users with Disabilities	
	SP242	Library Storage Facilities	
	SP241	Gifts and Exchange Function	
	SP240	Marketing and PR Activities	
	SP239	Mentoring Programs in ARL	
	SP238	ARL GIS Literacy Project	
	SP237	Managing Food and Drink	
	SP236	TL 7: E Theses/Diss	
	SP235	Collaborative Coll Managmnt	
	SP234	TL 6: Distance Learning	
	SP233	ARL in Extension/Outreach	
	SP232	Use of Teams in ARL	
	SP231	Cust Service Programs in ARL	
	SP230	Affirmative Action in ARL	
	SP229	Evaluating Acad Libr Dirs	
	SP228	TL 5: Preserving Digital Info	
	SP227	Org of Doc Coll & Svcs	
	SP226	TL 4: After the User Survey	
	SP225	Partnerships Program	
	SP224	Staff Training & Development	
	SP223	TL 3: Electronic Scholarly Pubn	
	SP222	Electronic Resource Sharing	

QTY	TITLE		
	SP221	Evol & Status of Approval Plans	
	SP220	Internet Training	
	SP219	TL 2: Geographic Info Systems	
	SP218	Info Technology Policies	
	SP217	TL 1: Electronic Reserves	
	SP216	Role of Libs in Distance Ed	
	SP215	Reorg & Restructuring	
	SP214	Digit Tech for Preservation	
	SP213	Tech Svcs Workstations	
	SP212	Non-Librarian Professionals	
	SP211	Library Systems Office Org	
	SP210	Strategic Planning	
	SP209	Library Photocopy Operations	
	SP208	Effective Library Signage	
	SP207	Org of Collection Develop	
	SP206	Faculty Organizations	
	SP205	User Surveys in ARL Libs	
	SP204	Uses of Doc Delivery Svcs	
	SP203	Reference Svc Policies	
	SP202	E-journals/Issues & Trends	
	SP201	E-journals/Pol & Proced	
	SP200	2001: A Space Reality	
	SP199	Video Collect & Multimedia	
	SP198	Automating Preserv Mgt	
	SP197	Benefits/Professional Staff	
	SP196	Quality Improve Programs	
	SP195	Co-op Strategies in Foreign Acqs	
	SP194	Librarian Job Descriptions	
	SP193	Lib Develop & Fundraising	
	SP192	Unpub Matls/Libs, Fair Use	
	SP191	Prov Pub Svcs Remote User	
	SP190	Chang Role of Book Repair	
	SP189	Liaison Svcs in ARL Libs	
	SP188	Intern, Residency & Fellow	
	SP187	ILL Trends/Staff & Organ	
	SP186	Virtual Library	
	SP185	System Migration	
	SP184	ILL Trends/Access	
	SP183	Provision of Comp Print Cap	
	SP182	Academic Status for Libns	
	SP181	Perf Appr of Collect Dev Libn	
	SP180	Flexible Work Arrangemts	
	SP179	Access Services Org & Mgt	
	SP178	Insuring Lib Colls & Bldgs	
	SP177	Salary Setting Policies	
	SP176	Svcs for Persons w/Disabilities	
	SP175	Scholarly Info Centrs	
	SP174	Expert Systems	
	SP173	Staff Recognition Awards	
	SP172	Information Desks	
	SP171	Training of Tech Svc Staff	
	SP170	Organization Charts	
	SP169	Mgt of CD-ROM	
	SP168	Student Employment	
	SP167	Minority Recruitment	
	SP166	Materials Budgets	
	SP165	Cultural Diversity	
	SP164	Remote Storage	
	SP163	Affirmative Action	
	SP162	Audiovisual Policies	

QTY	TITLE		
	SP161	Travel Policies	
	SP160	Preservation Org & Staff	
	SP159	Admin of Lib Computer Files	
	SP158	Strategic Plans	
	SP157	Fee-based Services	
	SP156	Automating Authority Control	
	SP155	Visiting Scholars/Access	
	SP154	Online Biblio Search	
	SP153	Use of Mgt Statistics	
	SP152	Brittle Books Program	
	SP151	Qualitative Collect Analysis	
	SP150	Bldg Security & Personal Safety	
	SP149	Electronic Mail	
	SP148	User Surveys	
	SP147	Serials Control/Deselection	
	SP146	Lib Dev Fund Raising Capabilit	
	SP145	Lib Publications Programs	
	SP144	Building Use Policies	
	SP143	Search Proced Sr LibAdmin	
	SP142	Remote Access Online Cats	
	SP141	Approval Plans	
	SP140	Performance Appraisal	
	SP139	Performance Eval: Ref Svcs	
	SP138	University Copyright	
	SP137	Preservation Guidelines	
	SP136	Managing Copy Cataloging	
	SP135	Job Analysis	
	SP134	Planning Mgt Statistics	
	SP133	Opt Disks: Storage & Access	
	SP132	Library-Scholar Communication	
	SP131	Coll Dev Organization	
	SP130	Retrospective Conversion	
	SP129	Organization Charts	
	SP128	Systems File Organization	
	SP127	Interlibrary Loan	
	SP126	Automated Lib Systems	
	SP125	Tech Svcs Cost Studies	
	SP124	Barcoding of Collections	
	SP123	Microcomp Software Policies	
	SP122	End-User Search Svcs	
	SP121	Bibliographic Instruction	
	SP120	Exhibits	
	SP119	Catalog Maintenance Online	
	SP118	Unionization	
	SP117	Gifts & Exchange Function	
	SP116	Organizing for Preservation	
	SP115	Photocopy Services	
	SP114	Binding Operations	
	SP113	Preservation Education	
	SP112	Reorg of Tech and Pub Svcs	
	SP111	Cooperative Collection Dev	
	SP110	Local Cataloging Policies	
	SP109	Staff Training for Automation	
	SP108	Strategic Planning	
	SP107	University Archives	
	SP106	Electronic Mail	
	SP105	Nonbibliographic Dbases	
	SP104	Microcomputers	
	SP103	Asst/Assoc Dir Position	
	SP102	Copyright Policies	

BEST COPY AVAILABLE

QTY	TITLE		QTY	TITLE		QTY	TITLE	
____	SP101	User Studies	____	SP067	Affirm Action Programs	____	SP033	Intergrat Nonprint Media
____	SP100	Collection Security	____	SP066	Planning Preserv of Lib Materials	____	SP032	Prep, Present Lib Budget
____	SP099	Branch Libraries	____	SP065	Retrospective Conversion	____	SP031	Allocation of Resources
____	SP098	Telecommunications	____	SP064	Indirect Cost Rates	____	SP030	Support Staff, Student Assts
____	SP097	Building Renovation	____	SP063	Collective Bargaining	____	SP029	Systems Function
____	SP096	Online Catalogs	____	SP062	Online Biblio Search Svcs	____	SP028	Gifts & Exchange Function
____	SP095	Lib Materials Cost Studies	____	SP061	Status of Librarians	____	SP027	Physical Access
____	SP094	Fund Raising	____	SP060	Lib Materials Cost Studies	____	SP026	Bibliographic Access
____	SP093	User Instructions for Online Cats	____	SP059	Microform Collections	____	SP025	User Statistics and Studies
____	SP092	Interlibrary Loan	____	SP058	Goals & Objectives	____	SP024	User Surveys
____	SP091	Student Assistants	____	SP057	Special Collections	____	SP023	Grievance Policies
____	SP090	Integrated Lib Info Systems	____	SP056	External Communication	____	SP022	Private Foundations
____	SP089	Tech Svcs Cost Studies	____	SP055	Interni Com/Staff & Superv Role	____	SP021	Paraprotessionals
____	SP088	Corporate Use of Research Libs	____	SP054	Internal Com/Policies & Proced	____	SP020	Managerial Technical Specialists
____	SP087	Collect Descript/Assessment	____	SP053	Performance Appraisal	____	SP019	Staff Allocations
____	SP086	Professional Development	____	SP052	Cost Studies & Fiscal Plan	____	SP018	Staff Development
____	SP085	Personnel Classification Svs	____	SP051	Professional Development	____	SP017	Library Instruction
____	SP084	Public Svcs Goals & Objectvs	____	SP050	Fringe Benefits	____	SP016	Reclassification
____	SP083	Approval Plans	____	SP049	Use of Annual Reports	____	SP015	Goals & Objectives
____	SP082	Document Delivery Systems	____	SP048	External Fund Raising	____	SP014	Performance Review
____	SP081	Services to the Disabled	____	SP047	Automated Cataloging	____	SP013	Planning Systems
____	SP080	Specialty Positions	____	SP046	Plan Future of Card Catalog	____	SP012	Acquisition Policies
____	SP079	Internships/Job Exchanges	____	SP045	Changing Role Personnel Officer	____	SP011	Collection Development
____	SP078	Recruitment-Selection	____	SP044	Automated Acquisitions	____	SP010	Leave Policies
____	SP077	Use of Small Computers	____	SP043	Automated Circulation Svs	____	SP009	Tenure Policies
____	SP076	Online Biblio Search Svcs	____	SP042	Resource Sharing	____	SP008	Collective Bargaining
____	SP075	Staff Development	____	SP041	Collection Assessment	____	SP007	Personnel Class Schemes
____	SP074	Fees for Services	____	SP040	Skills Training	____	SP006	Friends of the Lib Organization
____	SP073	External User Services	____	SP039	Remote Storage	____	SP005	Performance Review
____	SP072	Executive Review	____	SP038	Collection Dev Policies	____	SP004	Affirmative Action
____	SP071	User Surveys: Eval of Lib Svcs	____	SP037	Theft Detection & Prevent	____	SP003	A Personnel Organization
____	SP070	Preservation Procedures	____	SP036	Allocation Materials Funds	____	SP003	Status of Librarians
____	SP069	Prep Emergencies/Disasters	____	SP035	Preservation of Lib Materials	____	SP002	Personnel Survey (flyer only)
____	SP068	AACR2 Implement Studies	____	SP034	Determin Indirect Cost Rate	____	SP001	Organization Charts

SPEC Price Information (ISSN 0160 3582)

- ❑ Subscription (6 issues per year; shipping included): $180 ARL members/$240 U.S. and Canada nonmembers/$340 international customers.
- ❑ Individual Kits: $30 ARL members/$40 nonmembers, plus shipping and handling.
- ❑ Individual issues of the Transforming Libraries (TL) subseries: $28, plus shipping and handling.

Payment Information

Make check or money order payable in U.S. funds to the Association of Research Libraries, Federal ID #52-0784198-N.

Purchase Order # _____

Credit Card: ___ MasterCard ___ Visa Exp date _____

Account # _____

Account holder _____

Signature _____

Shipping & Handling

U.S. and Canada: UPS Ground delivery, $6 per publication.

International, bulk, and rush orders: Call or email for quote.

Total Shipping $_____ **Total Price** $_____

Ship To

Name _____

Institution _____

Address (UPS will not deliver to P.O. boxes)

_____

_____

_____

Phone _____

Fax _____

Email _____

Send orders to: ARL Publications Distribution Center, PO Box 531, Annapolis Junction, MD 20701-0531 phone (301) 362-8196; fax (301) 206-9789; email <pubs@arl.org>

Order online at: <http://www.arl.org/pubscat/index.html>

BEST COPY AVAILABLE